





FIELD-MARSHAL LORD GRENFELL, G.C.B., G.C.M.G., LL.D.



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THIS VOLUME OF "THE GARDEN"

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FIELD-MARSHAL LORD GRENFELL,

G.C.B., G.C.M.G., LL.D.

(President of the Royal Horticultural Society.)

WHEN Field-Marshal Lord Grenfell accepted the Presidency of the Royal Horticultural Society in the spring of 1913, the cloud of the great European war was not apparent. It therefore appears the more fortunate that he should have consented to preside over this great National Society at a time when his knowledge, experience and connections are invaluable to the Society over which he exercises a wise and guiding hand. Ever since the revival of the Society in the eighties, there almost seems to have been some higher care watching over it. When difficulties have threatened, they have been removed in remarkable ways, leaving the Society stronger than ever and in a better position to pursue the good work it is doing in increasing beauty, happiness and health throughout this fair land.

Lord Grenfell has been devoted to the art of gardening for the greater portion of his life. In the many parts of the globe where he has been stationed, he has succeeded in creating a garden for himself. He was probably the first to grow English Roses in Malta. He imported a large number there and grew them successfully. When in Egypt he founded a horticultural society, which became influential in improving the cultivation of flowers, despite the difficulties involved by the annual rise of the Nile. In late years Lord Grenfell has taken the keenest interest in his beautiful garden at Overstone, near Northampton.

Lord Grenfell entered the Army in 1859 and served in the Kaffir and Zulu Wars of 1878-79. He was Quartermaster-General in the Transvaal in 1881-82. Between 1882 and 1892 he was occupied in the Egyptian and Nile Expeditions, and was Sirdar of the Egyptian Army from 1885 to 1892. Subsequently, Lord Grenfell was Inspector-General of the Auxiliary Forces, Governor and Commander-in-Chief of Malta, for some time Commander of the 4th Army Corps and for five years Commander-in-Chief in Ireland. In recognition of his great services, Lord Grenfell was raised to the peerage in 1902.

It falls to the lot of very few men to gain such distinguished honours, but one tribute very dear to him is that of his late and gallant nephew, Captain Francis O. Grenfell, who was the first officer to win the Victoria Cross in the present war. Referring to his uncle, Captain Francis Grenfell in his will, which has been recently proved, says: "I should like to express my deep gratitude for his kindness to me during my lifetime, ever since the day when he decided I should go into the Army at his expense. I have endeavoured to base my career on his example." He has, since the death of my father, done everything that a father could do for me."

INDEX.

- Abutilon Triumph, 496
 Acacia, False, as a hedge plant, 133; platyptera, 25, 551
 Achillea Ostrifolia, 315
 Aconites, Winter, and Snowdrops, 97
 Actinidia chinensis, 589, 610
 Actinidias, two climbing, 565
 Æsculus parviflora, 436; plantiærensis, 311
 Agave americana, 554
 Agrostis nebulosa, 95
 Ailantus glandulosa, a noble group of, 242
 Akebia quinata, 529
 Allium kansuense, 543
 Alpines as border plants in Scotland, 337; increasing, 340; in Yunnan, Mr. George Forrest on, 347; late-flowering, 506, 541, 573; under glass, 121
 Alyssum spinosum, 302
 Amaryllis, the, after flowering, 263
 Anemone blanda, 217; fulgens, how to grow, 207; japonica Kentish White, 431; nemorosa bosniaca, 211; Pulsatilla, 181; rupicola, 273; sylvestris, 277
 Annual, a good hardy, for edgings, 140; flowers suitable for cutting, 103
 Annuals at Reading and Slough, 131; between shrubs, 372; for beds, 23; hardy, among shrubs, 127; in border, 179; sowing late, 265; the best climbing, 201
 Antirrhinum Asarina, 372
 Antirrhinums and disease, 171; and Mr. Cuthbertson, 135; as bedding plants, 480, 505, 541; cultivation of, 31; eaten by animals, 539, 553, 588; in the Bournemouth Public Gardens, 457
 Apple, a good culinary, 549; Blenheim Orange, 492; blossom, about, 313; blossoms, about, and other things, 278; Cox's Orange Pippin grafted on Irish Peach, 243, 312, 336; crop, prospect of the, 182; crop, storing the, 458; double flowers, 323; Edwin Beckett, 496; frost damage to, 1; Gascoyne's Scarlet, 578; growing in Nova Scotia, 368; Lane's Prince Albert, 566, 589; Langley Pippin, 419; Madresfield Court, 566; Miller's Seedling, 529; Wellington, 503
 Apples and Pears for Midland Counties, 19; at Swanmore Park, Hants, 261; flavour and pedigree of, 29, 70; fruiting on young trees, 458; storing late, 467, 493; the four best dessert, 560; two fine, 629
 Aquilegia, the Long-spurred, in Scotland, 350
 Aquilegias in pots, 467
 Arbutus Unedo, 564
 Armeria cæspitosa, 157; fasciculata, 479
 Artichokes, wintering Globe, 597
 Arum Lily, a hardy, 614
 Asclepias fruticosus, 529
 Ash, the Rowan or Mountain, 197
 Asparagus, hints on growing, 140; giant, 604
 Aster alpinus Nancy Perry, 306; Amellus King George, 541; Amellus Mrs. Perry, 518
 Aubrietias, the value of, 217
 Auricula Edenside, 201
 Auriculas for the outdoor garden, 221; notes on, 93, 141, 173, 207, 281, 410, 498, 591
 Australian Bluebell Creeper, the, 438
 Azaleas, propagating, 191; from cuttings, 266
 Balsams, hardy, notes on, 471
 Bamboos, hardy, and their cultivation, 222
 Banksias, 611
 Barbadoes Pride and its Latin name, 601
 Barberries, two showy new, 206
 Bartsia Odontites, 468
 Bartsias, little-known British, 504
 Beans, Haricot and Butter, cultivation of, 192
 Bed, a charming autumn, 126
 Begonia Fireflame, 566; Lord Methuen, 354; Mrs. Cuthbertson, 354; President Carnot, 433
 Begonias, trial of winter-flowering, 277; tuberous, from seed, 37
 Benthamia fragifera fruiting in Surrey, 50; fruits of, 23
 Berberis acuminata, 575; Aquifolium, a tall specimen of, 218; candidula, 109; hybrida, some beautiful, 142; pinnata, 206; pinnata in Hertfordshire, 324; Sargentia, 447; sargentiana, 592
 Birds and ripe fruits, 433, 457, 480
 Blackberry, the cultivation of, 499
 Black or Berry-Bearing Alder for gunpowder, 465
 BOOKS—
 "Adventures among Wild Flowers," 35
 "Fungoid Diseases of Field and Garden Crops," 453
 "Gardeners' and Florists' Annual for 1915," 107
 "Gardening for Beginners," 132
 "My Shrubs," 240
 "My Villa Garden," 356
 "Plant Life," 368
 "Popular Hardy Perennials," 356
 "School Gardening," 416
 "Sweet Peas and Antirrhinums," 96
 "The Book of Hardy Flowers," 393
 "The Door in the Wall," 595
 "The Garden Under Glass," 35
 "The Hobby Gardener," 393
 "The Mutation Factor in Evolution, with Particular Reference to Enothera," 416
 "The Principles of Agriculture through the School and Home Garden," 441
 "The Spirit of the Soil," 607
 "Transpiration and the Ascent of Sap in Plants," 36
 "Trees and Shrubs Hardy in the British Isles," 95
 Border, a bright summer, 528; scarlet and white in the, 347
 Borders, flower, at a cripples' home, 360; at Goodnestone Park, Canterbury, 494
 Botany, railway, 361
 Bouvardias, treatment of, 205, 218
 Bracken roots, 565; use of, as litter, 467, 513
 Brambles and their peculiarities, 215
 Brasso-Cattleya Admiral Jellicoe Broadlands variety, 566; Cliftonia albens, 56; Cliftonii Fowler's variety, 225; Cliftonii Sir John French, 152; Schröderæ Shrubbery variety, 129; vil-moriniana Shrubbery variety, 225
 Briar wood for pipes, 217
 Brunfelsias, the, 112
 Buddleia Colvillei, 457, 493; from Middlesex, 416; madagascariensis, 599; officinalis as a pot plant, 13
 Buddleias, late-flowering, 470
 Bulb notes, 408; order in 1915, 451; planting and trial gardens, 474
 Bulbs, blue-flowered, for autumn planting, 484; British versus Dutch, 408; early planting of, 441; for convalescent camps, 575; for grass and woodland, 473; for spring planting 195; forced, the colouring in, 159; in grass, 503; some, for spring planting, 165; that ought to be potted in August, 385
 Business, starting a, 333
 Butcher's Broom and other plants, 27
 Cabbage, a hint on cooking, 122; a remedy for club in, 529, 576; club in, 516; Little Gem, 50; Sutton's Harbinger, 218
 Cabbages and perennial Poppies, trials of, at Wisley, 359
 Cassalpinia japonica and C. pulcherrima, 577, 601
 Cassalpinias, two hardy, 546
 Calceolaria cuttings, 457
 Calceolarias, herbaceous, 305; three good shrubby, 245
 Calluna vulgaris cuprea, 73
 Camellia reticulata, 73
 Campanula Abundance, 402; arvatica (acutangula), 378; gargarica hirsuta, 603; Meteor, 378; portenschlagiana, 90; portenschlagiana and Pinks, 223; Profusion, 592; pusilla Miss Willmott, 188, 330
 Candytuft, Iberis gibraltarica, 61
 Cannas and Dahlias, storing, 498
 Canterbury Bells and Alkanet, 352
 Carduncellus pinnatus, 195
 Carnation Alice, 518; Aviator, 543; Bishton Wonder, 47; Bookham Clove, 273; Caprice, 47; Colleen, 47; Daisy Walker, 196, 273; Delice, 47; General Joffre, 47; Good Cheer, 152; Grenadier, 47; Malcolm, 617; Mme. Charles Page, 47; Mrs. G. Lloyd Wigg, 176; Nora West, 47, 192; notes, 631; Wivelsfield White, 47
 Carnations, border, 542, 579, 611; autumn planting versus spring planting, 421; new Perpetual-flowering, 404; notes on, 101, 135, 177, 234, 314, 362, 375, 472; Perpetual-flowering, 266; Tree, sporting, 528
 Carpentaria californica, when to prune, 24
 Cassia corymbosa at Eastbourne, 372; flowering outdoors, 564
 Cassinia fulvida, 145
 Catalogue, the ideal, 22; Daffodil, 99
 Catasatum Bungerothii, 447
 Catkins, notes on, 151
 Cattleya Ajax Primrose Dame, 518; amabilis Fowler's variety, 477; drapsiana vinosa, 426; hardyana alba, 447; hardyana variety His Majesty, 426; Harold Fowler's variety, 402; Luegeæ Fowler's variety, 543; Mendellii Mrs. Smee, 354; Moira rubra, 543; Olympus, 129; Paula, 354; Sybil Scintillant, 402; Sybil variety rotundobellum, 426; Sybil variety W. R. Lee, 447; Tityus Rex, 273; Triana Queen Elizabeth, 80; Venus Princess Mary, 477; Warscewiczii Mrs. E. Ashworth, 354
 Ceanothus Fantaisie, 477; George Simon, 496; rigidus (vera), 260; vars. 609
 Celeriac and its cultivation, 227
 Celery, crisp, how to grow small, 48
 Centaurea Ætheopappus pulcherrima, 111
 Ceratostigma plumbaginoides, 400; will-mottianum, 491
 Cercis Siliquastrum, 287
 Chamomile, the double, 63, 110
 Charity begins at home, 534
 Cherry, the Bird, 312; Waterloo, 378
 Cherries, Morello, for north walls, 29; the flowering, 229
 Chicory or Witloof, the cultivation of, 225
 Chionanthus virginica, 100
 Chionodoxa Lucilia, 73; sardensis, 157
 Chorizema ilicifolium, 251
 Christmas Roses, 613; transplanting, 15, 38
 Chrysanthemum Aphrodite, 578, arcticum, 545, 576; Aristocrat, 590; Bertha Fairs, 543; Charlotte E. Soyer, 543; Edith Cavell, 566; General Smith-Dorrien, 543; Golden Champion, 566; Louisa Pockett, 590; Market Bronze, 543; maximum Caledonia, 420; Merstham Beauty, 551; Monica Mitchen, 590; Phyllis Cooper, 566; the, and its associations, 537
 Chrysanthemums at Finsbury Park, 563; border, notes on, 544; border, winter treatment of, 20; early flowering or border, 224; notes on, 17, 32, 70, 140, 177, 259, 283, 332, 392, 618; outdoor or border, 566; propagation of, 12; protecting early flowering, 575; that last well in Scotland, 41; to bloom at Christmas, 47; work among the, 411, 436, 578
 Chrysogonum virginianum, 14
 Cistus cypricus, 347; purpureus, 99
 Citrus trifoliata, fruits of, 597
 Clarkias for the conservatory, 363
 Clematis aphylla, 260; Flammula in the flower border, 498; Hendersonii, 371; montana, 43, 63
 Clematises and their cultivation, 448; where to grow, 316
 Clerodendrons, hardy, 578
 Clethra alnifolia, 431
 Climbers, late-flowering, 576; some good greenhouse, 223
 Clivia, the, as a window plant, 206
 Cobs, not Filberts, 528
 Celogyne cristata, treatment of, 36
 Colechicum speciosum, 472
 Colchicums and autumn-flowering Crocuses in grass, 447
 Collomia coccinea, 384
 Colour charts, 116, 147, 159, 183, 429, 501
 Combination, a pink and blue, 205
 Copper preserving pans, 157
 Coreopsis grandiflora and Madonna Lilies, 371
 Cornflowers, about, 335
 Corn, Sweet, cultivation of, in England, 34
 Cornus Nuttallii, 374
 Coronilla glauca, 539; as a hardy plant, 300
 Corylopsis spicata, 169
 Corylus Colurna, 97
 Cosmos, early flowering, 80; naturalised in Rhodesia, 235
 Cotoneaster frigida, 575; Simonsii, 480; as a wall plant, 456, 492
 Cotyledon simplicifolia, 306
 Cowley, H., appointment of, 479
 Crab Apple, Pyrus niedzwetzkyana, 229
 Crataegus cordata, 347
 Crinum Powellii, 50; how to plant, 2; in a reader's garden, 528; planting, 38
 Crinum at Michaelmas, 19; the, 432, 481, 455
 Crocus biflorus Alexanderi, 104; Lemon Queen, 104; byzantinus, 554; Imperati albidus, 104; pulchellus albus, 518, 527, 529; species, 481, 552; speciosus Bowles' White, 529; in the grass, 467; susianus, 109; tommasinianus, 85
 Crocuses at Kew, 158; of autumn, 387; outdoor, for bowls, 97; the Autumn, 566
 Crops, produce of, 1915, 587
 Crown Imperials, 205
 Cupressus, gall on root of, 527
 Cuttings with heels, 2, 27, 50, 75
 Cyclamen Coum, 101; Persian, how to succeed with, 404; persicum, hardness of, 3; pseud-ibericum, 133; sowing, 443
 Cydonia Mallardi, 447
 Cymbidium coningsbyanum Brockhurst variety, 32; Schlegelii Fowler's variety, 104
 Cypress, the Deciduous, 342, 360
 Cypripedium arthurianum Langley variety, 32; Calceolus, 399, 420, 429; in Switzerland, 361; Curtisii Sanderæ, 306; Grand Duke Nicholas, 32; Iona Priory variety, 590; Priory Beauty, 590; Pyranus Chardwar Ideal, 32; spectabile, 299
 Cytisus Dallimorei, seedling forms of, 299; fragrans, 109, 218; præcox, 229; purpureus, 265; scoparius sulphureus, 67
 Daffodil, a word to, seedling raisers, 170; bulbs, living pests in, 4; bulbs, soaking, in water, 39; Leedsii, new division of the classes and a suggestion, 300; names, a classified list of, 551; notes, 53, 64, 88, 113, 125, 138, 148, 164, 174, 187, 199, 209, 220, 233, 243; notes from New Zealand, 22, 352; Olympia, 443, 469; or Narcissus, 147; what is a? 147; "Year Book, 1915," 531, 565, 613
 Daffodils, a new cup for, 165; and Tulips, lifting and storing, 301; classes for miniature, 242; division of Leedsii, class of, 110; for the garden, 39, 58, 75, 87; garden, 242; Leedsii, the new division of, 324; technical terms used in describing, 158; what is wanted in, 183
 Dahlia Aggie Hutt, 431; Anna Louise, 518; A. R. Perry, 477; Bacchante, 496; Blaze, 477; Caprice, 447; Carron, 496; Constance, 477; Coyness, 477; Cresset, 477; Curlew, 477; Diamond, 496; Don Juan, 477; Erin, 496; Esmée, 477; Garland, 496; Geraldine Edwards, 426; Gossamer, 477; Herald, 447; Landmark, 496; Leviathan, 518; Madonna, 496; Miss Judd, 447; Patrol, 426; Primrose Queen, 447; Rainbow, 518; Sappho, 477; Saucy, 496; Scarlet Queen, 447; Sceptre, 496; Searchlight, 496; Sharman Crescent, 477; The Boy, 496; The Girl, 496; Tipperary, 477; trial at Duffryn, 22; Ursula Major, 496; Vanesse, 477; Warneford, 447; Washington, 447; William Pound, 477; Yellow Star, 447
 Dahlias, 547; on a trellis, 242 the Collarette, 200, 407; the Mignon, 396
 Damsen, the Merryweather, 583
 Daphne Arborea, 260; Mezereum, 145
 Davidia involuta Vilmorinii, 145
 Decoration, table, hints on, 453
 Delphinium Queen of the Belgians, 330; venustum, 306
 Delphiniums, 102; the, or perennial Larkspurs, 510
 Dendrobium hookerianum Fowler's variety, 477; Triumph, 56
 Deutzia Vilmorina in Ireland, 564
 Dianthus gracilis, 597; neglectus Aurora, 306; Spencer H. Bickham, 324, 373; woodfordensis, 306
 Dianthus or Pinks, the, 184
 Dictamnus albus, 507
 Dimorphanthus mandschuricus variegatus, 598
 Dimorphotheca pluvialis, 553
 Disa Blackii, 272
 Dombeya Mastersii, 601
 Earthworms, useful and injurious, 61
 Elderflower wine or Frontignac, 349
 Elders, some scarlet-fruited, 342
 Elm trees, the danger of, 455
 Endive, some notes on, 432
 Epitaph on a garden friend, 552
 Erica arborea, 288; australis, 26; cinerea atrorubens, 354; cinerea atrosanguinea, 323; cinerea coccinea, 420; mediterranea hybrida, 109
 Erigeron Asa Gray, 335; hybridus Asa Gray, 330; philadelphicus, 564; Quakeress, 575; speciosus superbum, 455
 Eryngium giganteum, 395
 Escallonia langleyensis, 315, 336; macrantha, 551; montevidense, 496
 Eschscholtzia The Geisha, 447
 Eucalypts for English gardens, 496, 540, 552, 588

- Eucalyptus globulus* and *E. Gunnii*, 493; in flower in Norfolk, 421, 468
Eueryphia pinnatifolia, 363
Euonymus latifolius, 527
Euphorbia Sibthorpii, 408
 Evelyn, John, some historical notes, 105
 Evergreens on walls in winter, 114; transplanting, 169
 Evesham Valley, the, in early spring, 156
- Farmers' Red Cross Sale, 597
 Fern, Maidenhair, fronds from Queensland, 121
 Ferns, desirable greenhouse, 356; hardy, for shady greenhouses, 267; hardy, for shady places, 120; in air-tight bottles, 145; treatment of, in pots, 73
 Fertilisation, physiology of, 85
 Fertilisers, our supplies of, 586
Ferula communis, 420
 Flax, New Zealand, at home, 50, 110, 135
 Florence Fennel, 595
 Floriculture in America, 227
 Flower-bed, a pleasing spring, 205; an effective, 299
 Flower-beds, some beautiful, 408
 Flower fragrance, some sources of, 624
 Flowers, annual, for autumn sowing, 423, 457; for the greenhouse, 424; in mixed borders, 163; manure for, 122; autumn, 546; deep blue and yellow, 217; for hot, sandy soil, 231; greenhouse, colour arrangement of, 97; sweet-scented, 80; hardy, in early autumn, 495; limelight, 288; long-stemmed, 38; magenta, 577, 603; outdoor, in midwinter, 37, 62, 75; preserving cut, 97; some annual, for spring sowing, 124; spring, at Stratton Park, 270; in association, 336; tender, at Hampton Court, 455; the charm of common, 156; the cutting of, 301, 360, 397
 Fly, the Celery, 183
 Figs, green, preserving, 433; recipe for bottling, 452
 Filbert Nuts, 499
 Forget-me-not, the Chatham Island, in Scotland, 171
Forsythia intermedia spectabilis, 176, 182; *suspensa*, 157
Fothergilla major, 77, 277
 Foxgloves and other flowers in the wild garden, 603; and their cultivation, 304, 324
Fraxinus Ornus, 362
 Freesias, a magnificent group of, 139; coloured, 151; cultivation of, 459; cultural hints on, 89; for Christmas, 282; from Guernsey, 135; hybrid, 110
 Friar Park revisited, 304
 Fritillaries, wild, 230
 Fritillary, the, as a wild plant, 219
 Fruit blossom, protecting, 130; crops in Calvados, Normandy, 322; hardy, summer pruning of, 392; prospects at St. Malo, 323; rooms, 475; trees, hardy, winter spraying of, 81; planting, 537, 631; summer spraying of, 317; thick *versus* thin training of, 605; ventures in fruit walls, 628
 Fruits and vegetables, bottling, 374
 Fuchsias, raising from seeds, 350; the cultivation of, 409
 Fungus, a large, 408
Funkia subcordata alba odorata, 2, 75; *subcordata grandiflora*, 27
- Galanthus nivalis* Scharlokii, 455
 Garden, a beautiful, in Scotland, 230; a, in the war desert, 313; a little, at Kensington, 571; a newly made at Sandbourne, Worcestershire, 244; a small, turned to good account, 553; an artistic little, 398; an Ayrshire, 457; an East Coast, 338; an interesting Cornish, 163; an interesting Surrey, 411, 432; Heath, at Wisley, 462; literature, 504; my cottage in Hampshire, 534; some "W. G.'s" of the, 584; sparrows in the, 288; THE GARDEN in the fighting line, 419; the Heath, in autumn, 581; the Heath, in late summer, 365; the sunk, at Regal Lodge, 559; wild, an effective combination for the, 241
 Gardeners' Royal Benevolent Institution, the, 322
 Gardening, informal and wild, 291, 303, 313, 326; in South Australia, 372; racecourse, in New Zealand, 414; of the week, 618, 630
 Gardens, cats in, 432; dry wall, 590; for little Londoners, 597
 GARDENS OF TO-DAY—
 Bodnant Hall, Denbighshire, 583
 Markyate Cell, Herts, 568
 Woodside, Chertsey, Bucks, 281
Gaultheria trichophylla in a Welsh garden, 237
Genista aetnensis, 359; *cinerea*, 326
Gentiana acaulis, 336, 373, 420; how to grow, 397; treatment of, 281; *asclepiadea*, 492; *ornata*, 518; treatment for, 457
Gerbera, cultivation of, 144
 Geum Mrs. Bradshaw, 503
Ginkgo biloba or Maidenhair Tree, 2, 27, 50
 Gladioli for spring planting, 184
 Gladiolus brecheleyensis and East Lothian Stocks, 157; masoniorum, 551
 Glasnevin, notes from, 232
Globularia incanescens, 423
 Gloxinias from seed, 37
 Godetia Double Rose, 37; Lavender, 330
 Goldfish changing colour, 409; in cement tank, 216; information about, 385
 Gooseberry caterpillars, 342, 361; flowers and sparrows, 193, 219, 243; mildew in Cambridgeshire, 193; Roseberry, 378; Whinham's Industry, 378
 Grammanthes gentianoides, 395
 Grape Vines in early autumn, 470
 G apes, an audit of, at the fruit show, 526
Grevillea juniperina sulphurea, 311; the genus, 182
Grevilleas in Australia, 170
 Ground, newly broken, 128
Gypsophila repens as a wall plant, 49
Habranthus pratensis, 277
 Hakea pinnifolia, 599
Hamamelis japonica zuccariniana, 97; *mollis*, 25
Hardenbergia comptoniana, 242
 Harvey, F. W., a few appreciations, 444; death of, 431
 Heath garden, the, in spring, 197; St. Dabeoc's, 56
 Heather, the double-flowered, 438
 Heaths, some winter-flowering, 40, 63; the Tree, 284
 Hedge of sorts, a, 14, 38, 50, 75; plants for, 24; upkeep of garden, 35
Hedychium gardnerianum, 216, 610
Helenium pumilum magnificum, 383
Helianthus Nattallii, 419
Helleborus niger altifolius, 1, 38
 Helix Solierii as a carpeting plant, 99
Hemerocallis as pot plants, 49; Golden Bell, 354
 Herbs, drying, 360
 Heucheras, dividing, 265
 Hibiscus, the Syrian, 412
 Himalayan Blackberry, 447
 Hollies, grafting, 216
 Holly, the, 239
 Homes, good, wanted, 464
 Honeysuckle, a Chinese, 563
 Honeysuckles, winter-flowering, 61
 Horse Chestnuts, collecting, 575
 Horticultural relief for Serbia, 404
 Horticulture examinations, National Diploma of, 380; in Belgium, France, Russia and Serbia, 229; in the good old days, 309
 Horticulturist, a Wigtownshire amateur, 32
 Houseleek, a Cobweb, 348
Humea elegans and skin irritation, 12
Hunemannia fumarifolia, 432
 Hyacinth Lady Derby, 144
 Hyacinths, about, 194
Hyacinthus azureus, 169
Hydrangea Radiant, 225
Hypericum Ascyron, 538; *patulum* Henryi, 371
Iris filifolia, 330, 390; Lohengrin, 306; Lord of June, 306; Maori King, 299; *pallida* dalmatica, 287; *Rothsides* Masterpiece, 306; *sibirica*, 533; *sindpers*, 133; *stylota*, 75; *Tauri*, 87; The Tiger, 458; *tingitana*, 14; walk, an, of Eastern splendour, 588
 Irises, Japanese, some attractive little, 241; trial of Bearded, at Wisley, 311
 Ivy for covering damp walls, 97, 135
Ixias and *Sparaxis*, 486
 Ixoras, 504
 Jasmine, the hardy yellow, 597
 Kale, Russian, 121
 Kew Gardens, an entrance fee to, 587, 609; springtime at, 193
 Kitchen garden crops, notes on, 513; flowers in, 6
 Kniphofias or Torch Lilies, 451
Koeleria paniculata, 494
 Labels in flower borders, 433
 Laboratory, the new, at Wisley, 491
 Laburnums, the, 245
Lachenalias, 433; notes on, 185
 Lælio-Cattleya Alex, 590; *Anaconda*, 260; *canhamiana* Fowler's variety, 330; *eximia* delicatissima, 447; *Fascinator* Mossiae var. *Imogene*, 260; *Fascinator* Mossiae var. *Moonlight*, 354; *Gold Star*, 273; *Golden Queen*, 426; *Helius*, 273; *Isabel Sander*, 225; *J. F. Birkbeck*, 176; *King Manoel*, 590; *Nana*, 201; *Sybil* Low's Variety, 272; *Thyone* Fowler's variety, 402; *Transylvania* Leonora Enid, 272
 La Mortola, the gardens of, 616
Lapageria rosea, 567; *alba*, 588 610
Lapagerias flowering outside on north walls, 576
Lardizabala bitermata, 432
 Latham, W. B., an appreciation, 26
Lathraea clandestina, 278
 Latin names and good resolutions, 7
Laurelia aromatica, 218
Laurentia tenella, 575
 Lavender harvest, a, 420; *Lavandula Spica alba*, 196; Sweet, 5, 371, 449, 609
 Leaves, burning, 481
Leptosiphon densiflorus hybridus, 25
Leucocjum venum, 169
Lewisia columbiana, 273; *Howellii*, a good plant of, 217; in Scotland, 267
Ligustrum lucidum, 13
Lilac Souvenir de Louis Späth, 265, 288
 Lilacs, cultivation of, 88; from cuttings, 144
 Lillium Amos Perry, 354; *auratum*, 38, 492; in Scotland and Japan, 91; *candidum*, 385; a note from the fighting line, 348; *giganteum*, early flowering of, 288; in Gloucestershire, 396; *regale*, 354, 605; *testaceum*, early history of, 100; *tigrinum splendens*, 527
 Lilies, 489; hybrid, 399; late-flowered, 549; Oriental, in Scotland, 448; some hardy, 3, 15, 27, 39, 51, 63, 76; the Plantain, 407; two charming, 498
 Lilliums and Gladiolus tristis, 541
 Lily, a beautiful Guernsey, 539; disease, the, and how to combat it, 325; Humboldt's, 443; of the Valley, how to force, 44; the Herb, 395; the Nankeen, 554, 598
 Lime wood attacked by fungus, 407
Linaria alpina, 443, 468; *aparinoides* splendens and flowers in general, 420; *macedonica*, 330
Lisianthus russellianus, 515
Lithospermum prostratum, 539
Lobelia ramosa, 407
 Loganberries, 527; and Raspberries, autumn treatment of, 402, 421
 Loganberry, the, 487; the origin of the, 552, 589, 610
 London squares, winter grime in, 90
Lonicera grata, 371; *hispida*, 287; *Maackii*, 306; *trichosantha*, 563
 Lowther Castle, the gardens of, 626
Lupinus polyphyllus, 312; the cultivation of, 206, 243, 278
 Lycaste Janet Ross, 152
Lycium pallidum, 299
Lysimachia Nummularia, 1
Lythrum virgatum, 396
Magnolia Delavayi, 599; *stellata*, 150, 183, 206
 Magnolias, notable, in Westmorland, 300
Mahonia Aquifolium, 194
 Mallows for summer and autumn, pink, 2; pink and white, 407
 Malopes, the, 23
 Manure, vegetable, 153, 171, 194
 Marmalade, Orange, a good recipe, 110, 134, 158
 Marrows, Vegetable, 492; how to store, 469
Mecynopsis heterophylla, 480; information about, 335; *Wallichii*, 175
 Melons, how to grow, in frame, 240; watering, 396
Mesembryanthemum crassulinum, 422
Metrosideros (Callistemon speciosus) flowering in Surrey, 372
 Michaelmas Daisies, 460, 483
 Micromeles Folqueri, 306
 Mignonette, fragrance in, 443
 Miltonia hycana F. M. Ogilvie, 273
 Mimosas, Australian, 78
 Mint within three weeks, 597
 Montbretia Queen Elizabeth, 447
 Moraine, a miniature, 349; the, as a feature of the small rock garden, 210
 Morris, Sir Daniel, 241
 Mouse-trap, a simple, for use in the garden, 577
Myosotidium nobile, 396; in Somerset, 348
 Myosotis or Forget-me-not, 235
 Narcissus Alice Knights, 152; *Caedmon*, 225; *Chrysee*, 201; *Distich*, 225; *Marsellaie*, 225; *Mary Copeland*, 225; *minimus*, 419; *nomenclature*, 186; *pallidus* *præcox*, 121, 147; *Poeticus* Double White, 452; *Santa Maria* in New Zealand, 361; *Treasure Trove*, 63; *triandrus*, 205; *viridiflorus*, 600; *White King*, 241, 225
 Nemesias, 419
 Nepeta Mussinii, 456; as a pathway edging, 424
 Nerine Rosebud, 496; *Vivid*, 496
 Nerines, 553, 577; or Guernsey Lilies, 545
 Nitrogen, potash and phosphorus, their effect on plants, 172
Notospartium Carmichaelia, 371
 Nursery notes: Messrs. J. Cheal and Sons, 532; Mr. G. Prince, Longworth, 585
 Nymphaea gigantea a trap for bees, 168
 Nymphaeas flowering outside in November, 563
 Oak, the, some historical notes, 289; trees, the, of the world, 351
 Obituary: Ball, C. F., 514; Bide, 8., 608; Burpee, W. Atlee, 608; Chapman, James, 72; Forder, James, 310; Hughes, Thomas, 188; Matthew Campbell, Blantyre, 430; Moncur, George Greig, 192; Nettleship, Geor. e., 192; Powley, Joseph, 454; Stevenson, Mrs., 24; Taylor, William, 72
Odontioda Colmaniae, 272; *lambeauliana* Nellie, 273; *Patricia*, 104; *Red Cross*, 330; *Zenobia leana*, 201
Odontoglossum Aglaon Orchidhurst variety, 272; *crispum* Perfect Gem, 306; *crispum* Queen of the Belgians, 273; *crispum* virginianum var. *Madonna*, 354; *eximeum* *Xanthotes* Gattton Park variety, 32; *Georgius Rex*, 354; *Leviathan*, 201; *Mars*, 176; *Pembury*, 566; *President Poincaré*, 426; *Princess Mary*, 272, 306; *sandhurstiana*, 104; *St. Vincent*, 306; *Victory*, 518
Odontoglossums, the Colombian, 413
Odontonia Charlesworthii Fowler's variety, 426
Oenothera fruticosa Youngii, 323
 Ointments, perfumes and cordials, ancient home-made, 325; soap and perfume, home-made, 348
 Olearia Haastii, 420; *insignis*, 306; *stellata*, 1
 Onions in Scotland, 62
Ononis cenisia, 553
Onosma taurica, propagating, 264
 Oranges, some good Mock, 139
 Or hid notes, 461
 Orchids, advice on, 71; for a cool house, 602; some interesting, at Kew, 364
 Orchis, a beautiful native, 438; the Kilmarnock, 385
Ourisia coccinea, some problems of cultivation, 340
 Oxlip, the Bardfield, 182
Oxytropis hybrida grandiflora alba, 306
Pæonia officinalis lobata, 351, 373, 396
 Pæonies, Tree, 291
 Palms, the most useful decorative, 175
 Pampas Grass, the silvery, 493
 Papaver commutatum, 287; *nudicaule*, 42; *Perry's Pigmy*, 306
Passiflora, 611; *edulis*, 576; fruits of, 551
 Pathological laboratory at Kew, 383
 Pathway, stone edgings to, 312, 348
 Pea Defiance Marrowfat, 9
 Peach "dug-out," a, 318; *Peregrine*, 551; trees and Vines, 594
 Peaches and Nectarines, cordon, 619; stones splitting in, 428
 Pear Louise Bonne of Jersey, 515
 Pears, hardy Prickly, 103; some reliable, 594
 Peas, a recipe for bottling, 348; and Phloxes, trials of, at Wisley, 440; cultivation of, 8; protecting from mice, 83; sowing, 10
 Pelargonium Kathleen Bunyard, 378
 Pelargoniums, show and fancy, 320; treatment of, 96
 Pentstemons, some hints on, 426
 Perennials, effects on, late transplanting, 390
 Perfumes, how to make, 337, 360, 384; and soaps, recipes for home-made, 373
Pericoma caudata, the golden-flowered, 563
 Pests, some insect tree, 212
Phacelia campanularia, 383
Philadelphus californicus, 371; *coronarius* *Virginal*, 383
Phlomis fruticosa, 43
 Phloxes for spring planting, 134; herbaceous, for spring planting, 115; twelve good, 531
 Phyllocacti, the cultivation of, 215
Pieris japonica, 157
 Pink King, 335; the Sea, or Thrift, 210
Pinus Armandii, 470; *Ayacuhte*, 587; with juvenile and mature foliage, 539
 Pit-props, supplies of wood for, 133
Plagianthus Lyallii, 486; flowering at Kew, 372
 Plans, two cottage garden, 136
 Planting a carriage drive, 508
 Plants, a rest cure for, 552; bedding, the pictorial use of, 422; changing botanical names of, 412, 480, 516, 540, 564; dry-wall, four good, 37; dwarf, for flower-beds, 191; English and Latin names of, 585, 598; foliage, some good light-coloured, 119; for mixed border, 107; for old masonry walls, 100; for the water edge, 614; herbaceous, thinning, 205; insectivorous, some curious, 269; insects on roots, 61; moraine, at Floraire, Geneva, 338; new and rare, 617; at Vincent Square, 323; pot-bound, danger of planting, 87; propagating, by cuttings, 116; propagation of, 42; rare native, the extermination of, 384; rock, October-flowering, 540; some simple, for edgings, 376; the best hard-wooded, 195; undesirable, for rock garden, 77
 Plum Allgrove's Superb, 454; *Coe's* Golden Drop, 527, 598; *Coe's* Golden Drop and Pear Pitmaston Duchess, 552, 576; *Coe's* Violet White Gage, 539
 Plumbago rosea, treatment of, 47

POEMS—

"August, 9 p.m.," 420
 "Autumn," 492
 "Nature-Lore," 505
Poinsettia pulcherrima plenissima, 14; treatment of, 47
 Pollination of hothouse plants by bees, 231
Polyanthus and *Primroses*, 365
Polygala Chamæbuxus, 56
Polygonum baldschuanicum, 41
Polypodium Dryopteris plumosum, 477
 Pomegranate, the, 462, 468; the dwarf, 480
 Pond weeds and copper sulphate, 237
 Poplar trees as a commercial asset, 14
 Poplars for avenue, 47
 Poppies, Oriental, 264; Shirley, 139, 452; as cut flowers, 395, 421; with blue flowers, 85; the Plume, 351
 Poppy, Oriental, Lady Frederick Moore, 91
 Potato, a good close-eating, 584; disease, 467, 550; good new maincrop, a, 123; tubers, growing, from seed, 153; Warwick Castle, 195
 Potatoes, new, 360; in winter, a letter from the Front, 421; new *versus* old, 347; planting, during July, 335; preparing for planting, 44; some hints on, 128; two good new, 183; wart disease of, 93
Poterium obtusatum, 426
 Pot-pourri, an old-time recipe, 349
Pratia repens angulata, 597
 Primrose and *Polyanthus*, some practical hints on cultivation, 308
 Primroses, Evening, 395; the growth of, 230
Primula Adonis, 225; *brevifolia*, 260; *capitata*, 124, 491; dell at Clandon, 395; *denticulata cashmeriana*, 97; *florida*, 260; *gracilentia*, 260; hardy, new and old species, 161; *involucrata*, 197; Lady Bird, 306; *malacoides* Rose Queen, 104; *Reinii*, 201; *sinensis*, 25; *tosaensis*, 266; *vinciflora*, 241
 Primulas for the woodland, 212; some beautiful hardy, 195; top-dressing, 71
Prunus Cerasus, 236; *Chealii pendula*, 201; *dauidiana*, 43; *Padus*, 241; *persica magnifica*, 109; *spinosa flore pleno*, 181; *triloba flore pleno*, 17
Pycnostachys Dawei, 61
Pyracantha crenulata, 32
Pyracanthas, the, 570
Pyrethrums and *Delphiniums*, 263; the second flowering of, 348
Pyrus crataegifolia, 311; *Malus Sargentii*, 273
 Quarry, the old, at Springburn Park, Glasgow, 467
Quercus Ilex, 242; *Mirbeckii*, 73; *pontica*, 515
 Quince crop, the, 503; the Japanese, utilising fruits of, 493
 Radium, effect of, on plant life, 109
 Raid, a culinary, 587
Ranondia pyrenaica, 357
Ranunculus cortusæfolius, 169; *Ficaria*, 181
Raspberry-Blackberry hybrids, 532
 Reader, Frank, a presentation to, 169; and the horticultural Press, 287
 Recipes, three useful, 373
Renanthera Storiel, 445
Reseda alba, self-sown, 336
Rhododendron intricatum, 205; *maximum*, 530; *nobleanum* flowering well, 73; *olicefolium*, 217; *Vaseyi*, 302
Rhododendrons, planting hardy, 557; propagating, 228; some good garden, 172; yellow-flowered evergreen, 290
 Rhubarb, how to force, 20; and Raspberry cup, a refreshing drink for hot summer days, 324
Ribes laurifolium, 171
Richardias, golden-flowered, 278
 Rivers, Mr. T. A. H., death of, 395
Riviera Notes, 612
Robinia Pseudacacia, 133
 Rock garden, a *Narcissus* for the, 482; annuals for the, 155; autumn-flowering bulbs for the, 509; flower, a beautiful, 65; *Ixias* for the, 505; undesirable plants in the, 111, 122, 134, 146, 167, 170, 209, 219, 230, 300
 Rock gardening, 243; as represented by its votaries, 182, 207
 Rock Roses for sandy soil, 299
 Rockery, an autumn, 396
 Rockets, the single Sweet, 433
 Rockwork, economy of, and garden literature, 480; the economy of, 386, 409, 421
 Rome Convention and the horticultural industry, 440
Romneya Coulteri, 37
Romulea rosea, 232
 Root-pruning, 33
Rosa laevigata, 182; *moschata*, 113; *rugosa*, 507; *sertata*, 109, 193, 503; *soulcana*, 359; *Vorbegii*, 323
 Rose, a fragrant white, 149; a good combination, 311; a great show, 323; *Alberic Barbier*, 425, 457

Rose American Pillar, 525; American Pillar in wet weather, 335; Arthur R. Goodwin, 347; A. R. Goodwin as a standard, 323; Betty, 407; Blush Rambler and *Carpenteria*, 432; Cherry Page, 338; *Cissie Eastlea*, 527; Climbing White Pet in a cottage garden, 359; *Colcestria*, 354; *Corallina*, 529; Cupid, 330, 338; Dewdrop, 273; diseases, 492; Earl of Warwick, 564; Electra, 92; Ethel, 520; Excelsa, 383; Flame of Fire, 338; Florence Spaul, 338; Fortune's Yellow, 543; Gloire des Rosomanes, 432; Golden Emblem, 477; good yellow-tinted, 398; Hadley, 421, 496, 515; hedges, 523; hips, wild and cultivated, 517; hips, wild, recipe for cooking, 456; Iona Herdman, 539; Johanna Bridge, 338; Lady Bowater, 338; Lemon Pillar, 338; maggot, the, 229; mildew, a few hints about, 445; mildew in New Zealand, 159; Minnehaha, 396; Miss Rosalie Winch, 373; Mme. Alfred Carrière, 617; Mme. E. Herriot, 455; Modesty, 477; Mrs. F. Dennison, 601; Mrs. John Foster, 518; Neige d'Avril, 361; Paul's Scarlet Climber, 273, 338; pillars in flower garden, 208; Prince Charming, 338; Princess Mary, 520; prospects of the season, 280; Queen, 383; Queen Alexandra, 338, 354; Queen of Fragrance, 338, 354; Rambler, *Débutante*, 452; Rambling Rector, 408; Rambling Sander's White, 420; Réve d'Or on a stable wall, 383; Sallie, 338; Sander's White, 431; season in Scotland, 378; some hints for exhibitors, 315; Souvenir d'Elise Vardon, 320; The Annual, 201; the, garden of Europe, 522, 544; the, prospects of autumn, 484; Tipperary, 477; Titania, 338; trees, a handsome gift of, 587; Ulster Volunteer, 477; *Wichuraiana Débutante* for arches, 433; *Wichuraiana The Farquhar*, 467; Yellow Bird, 306
 Rosemary, little-known forms of, 56
 Roses, a garden of, 150; a garden of ever-blooming, 55; a new classification of, 465; and Pinks, 277; autumn, in Southern Scotland, 494; Banksian, 14; how to flower, 38; black spot on, 535, 561, 576; British, of recent introduction, 149; China, 196; covered chains for, 480, 504, 516, 528; early, 300; English and Irish in Southern Scotland, 51; for pillars, 580; fragrant, 523, 540, 565; green fly and mildew on, 62; hints on pruning, 107, 141; in a West Lothian garden, 219; in town gardens, 41, 112, 131, 177, 237, 284, 329; in Yorkshire, 459, 475, 520; large-flowered and Rambler, 328; large-flowered for arches and pillars, 269; mildew and green fly on, 159; mildew-proof, 2, 27, 51, 108; Minnehaha and Hiawatha, 371; mistakes to avoid when planting, 67; Mme. Alfred Carrière and Carmine Pillar, 336; Multiflora and *Wichuraiana*, 393; newer garden, of uncommon type, 95; notes on, from New Zealand, 168; October, at Kew, 515; on walls, 521; pergolas of, and other climbers, 435; *Pernetiana*, 97; *Pernetiana*, during 1915, 519; pink, and *Nepeta Mussinii*, 335; planting in early spring, 61; *Polyantha Dwarf*, 19; preparation of beds for, 518; pruning the Japanese, 366; Rambler, by waterside, 316; rust on, 535; some early, 291; some good new, 525; the best in Australia, 311; the earliest to flower, 316; the, of autumn, 506; the Scotch in beds, 208; under glass, 134
 Royal Horticultural Society, a letter from, 441; Society's War Relief Fund, 347
Rubus arcticus, 242; *ulmifolius*, 491; *Veitchii*, 518
Rudbeckias Newmanii, 624
 Rust, the Plum and Anemone, 300
 Rustic support, an easily made, 121
 Sage, a beautiful greenhouse, 613
Saintpaulia ionantha, 18
 Salad, a useful winter, 597
Salvia rutilans, the hardness of, 452
 Sandwiches, some green, 135
Sarcococca humilis and *S. ruscifolia*, 110
Saxifraga Irvingii, 152; *lantosana superba*, 400; *ilacina*, 146; *lingulata*, 188; *marginata*, 294; *oppositifolia* R. W. Prichard, 152; *paradoxa*, 452; *Vandellii*, 201
Saxifragas, early flowering, 30; Mossy, turning brown, 36, 62
Scabiosa caucasica, 556, 588; *cretica*, 597
 Schedules, two 1916 Daffodil, 547
Schizanthus retusus, 419
Scolopendrium vulgare crispum speciosum, 543; *vulgare plumosum*, 518

Scolopendriums, 570
 Screens, trees for, 146
 Sea Buckthorn, birds eating fruits of, 287; Pinks as edging to Rose-beds, 576
 Seats, concerning garden, 212
 Seaweed as manure, 599
Sedum spectabile, 491, 516; as a bee flower, 551
 Sedums, nomenclature of, 13
 Seed sowing under glass, 66
 Seeds, flower, for the Front, 431; for soldiers, 322; supply of, 11; sowing, 33
Senecio Clivorum, 515; *multibracteatus* Clare Lodge variety, 273
Shortia uniflora grandiflora rosea, 129
 Show, an American flower, 192; Holland House, thoughts after, 361; spring, at Chelsea, 247; the Midland Daffodil, 216
 Shows, schedules and judges, 26, 50, 62, 87, 99, 110, 123
 Shrub, the Golden Bell, 157
 Shrubbery, replanting a, 394
 Shrubs, choice fruiting, 503; for stony soil, 179; hardy, for roof, 357; hints on pruning, 108; propagating, 491, 516; some beautiful winter-flowering, 79; some flowering, of Australia, 263; some good hardy, 428; the fruiting of choice, 565; treatment of, after forcing, 284; treatment of newly planted, 241; two dwarf uncommon, 85; two good yellow-flowered, 428; with fragrant leaves, 68
Sidalcea candida, 506
Silene Hookeri, 389
 Skimmias in perfection, 112
 Snapdragons, the modern, 236
 Snapdragons, cultivation of, 31; for present sowing, 374, 396
 Snowball Tree, the Japanese, 612
 Snowdrop, *Galanthus nivalis*, in grass, 121
 Snowdrops and Winter Aconites, 97; fungoid disease of, 92
 Societies, Cottage Garden and Vegetable, Shows, 541
Solanum ciliatum, 56, 75, 493, 566; *crispum*, 54, 468; *jasmoides*, 455, 480
Soldanella alpina in London, 2
Solidago Golden Wings, 527
 Solomon's Seal, how to force, 44
Sophora japonica, 416; *vicifolia*, 508
Sophora-Cattleys Pearl, 566; *Sylvia*, 447
 Spinach, a hint on cooking, 122; New Zealand, 181, 265, 278
Spiraea Aitchisonii, 433
 Spray nozzles, trial of, at Wisley, 121
 Spring effect, a charming, 205; the fragrance of, 296
 Spruce, the Norway, as a hedge plant, 384
 Squill, the Spanish, 265
Stachys corsica and *Asperula suberosa*, 467
Stachyurus chinensis, 182
 Starworts, the Italian, 558
Statice latifolia, propagating, by root cuttings, 61
Stephanotis floribunda, culture of, 394
Sternbergia lutea, 481, 517; in Scotland, 504
 Stock, Virginian, for the autumn, 335
 Stocks, annual, cultivation of, 126
 Strawberries, planting, 395; seasonable work among, 169; the cultivation of, 353
 Strawberry season, how to prolong the, 430; St. Fiacre, 477; Tree, fruits of, 564
Streptocarpus and their cultivation, 363; culture of, 297
Streptocarpus cyaneus, 193; hybrid, 46
Styrax hemsleyana, 205
 Sun Roses, the, 231, 288; white, growing wild, 348
 Sunflowers, the perennial, 416
 Sweet Pea Jean Ireland, 354; National, Society's outing, 359
 Sweet Peas at Castlemilk, 360; best white, 92; cream pink, 167; for garden decoration, 77; from cuttings, 170; from cuttings and as standards, 127; new, 366; notes on some of the newer, 397
Syringa Juliana, 194; *Sweginzow*, 306
Tamarix anglica, 342
Taxus baccata fructu-luteo, 575
Thalictrum dipterocarpum, 493
 Thrift, a charming dwarf, 157
 Toad, the, in the garden, 372, 397, 408, 420
 Tomato plants diseased, 432
 Totley Hall, Derbyshire, 364
 Traveller's Joy, the, as a wayside plant, 592
 Tree leaves, 445
 Trees and shrubs as screens, 119; beautiful spring-flowering, 160; berried, 530

Trees and shrubs, deciduous, 380; evergreen, 380; snow on, 49; the best berried, 482; the use of variegated, 380
 Trees, early flowering, two beautiful, 145; our native, and their congeners, 593, 600, 615, 626; Japanese at Coombe Wood, 386; seedling, 575
Troilus chinensis, 37
Tropæolum speciosum, cultivation of, 68, 87, 111, 134; *tuberosum*, 610
 Tulip Bloodstone, 273; Bouton d'Or, 277, 312; Bread, 587; Comedy, 273; Empire, 260; exhibition and conference, 267; Inglescombe White, 273; *Raufmanniana*, 157; Marconi, 260; *Mirvana*, 280; notes, 164, 279, 289, 468, 485; Satin Gown, 273; show and conference, 215, the, in bygone days, 288; Winner, 260
Tulipa montana, 176
 Tulips, Darwin and Cottage, in the flower garden, 189; Darwin, the breaking of, 528; for forcing, 85; late-flowering, 555; May-flowering and Wallflowers, 327; species, in pots, 227; that flower in May, 508; trials of, at Wisley, 181
 Tweedia cærulea, 567
 Valerian, the Red, 54
Valeriana Phu aurea, 193
Vanda luzonica, 566
 Vegetable and fruit crops in Holland, 416; crops, spring manuring for, 117; crops, the desirability of late, 308; cultivating for present necessity, 155; cultivation, a pamphlet on, 193
 Vegetables exhibiting, 446, 468, 598; for sowing during August, 389; home grown, and our food supply, 63, 74, 86, 98, 110, 122, 133, 134, 146, 159; how to increase supplies, 81; insect enemies of, 239; large, 120, 266, 312, 337; large *versus* small, 288; notes on, 11, 46, 104, 165, 213, 261, 294, 332, 377, 384, 414, 446, 487, 535, 584; notes on, from seed, 128; quality in, 183; quality in, *versus* size, 206; storing for winter use, 469; the *Daily Mail* Show of, 480, 505; wanted, more exhibitors of, 443
Verbena chamædrifolia, 510, 528; *chamædryoides*, 354
Veronica Traversii, 383
 Veronicas, the, or Speedwells, 434
Viburnum plicatum in Hampshire, 384
Viburnums, the, or Guelder Roses, 336
Vinca difformis, 515
 Vine, a neglected, 511
 Vines, how to prune, 29; treatment of, in winter, 23; ornamental-leaved, 66
 Viola, a pleasing combination of, 287; *bosniaca*, 419; *bosniaca*, the hardness of, 456; *Papilio*, 265; *septentrionalis*, 273; *Rydbergii*, 455
 Violas, cultural notes on, 438; from layers and cuttings, 456; the yellow rock garden, 273
 Violets, Sweet, 569
 Virginian Speedwell, the giant, 259
Vitex Agnus-castus, 479
Wahlenbergia vincaeflora, 340
 Wall Bellflower, the, and Pinks, 223
 Wallflower and Tulip, a beautiful combination, 241; sowing seed, 189
 Wallflowers and their cultivation, 5; improved, 336; in pots, 135
 Wall garden, an inexpensive, 218
 Wall gardens, dry, 602
 Wall gardening, 17
 Walls, rock plants on, 349
 Wasps and fruit, 230, 266; destruction of, 456; war on, 206
 Water Elder, the, 469; gardening, 436; Lilies, planting the hardy, 198
 Watering, some hints on, 339
 Waterside, native plants for the, 401
 Wattle hurdles for shelter, 146, 170, 195
 Windflowers, Japanese, 471, 497, 516, 540
 Wistarias, the, and their cultivation, 293
 Wood, self-sown, 34
Wulfenia corinthiaca, how to flower, 266; the flowering of, 468
 Yucca gloriosa, replanting, 12

COLOURED PLATES.

Rose Princess Mary, 520
 Wallflowers, four good, 5

ILLUSTRATIONS.

Acacia dealbata, 78
Acer palmatum at Coombe Wood, 387
Achillea Kellerceri, 540; *Obstriti*, 314
Asculus parviflora, 436
Agave americana at Torquay, 555
Alyssum spinosum, 303
Androsace sarmentosa, 65
Anemone blanda at Wisley, 217; Japanese, Queen Charlotte, 471; *japonica cristata*, 516; *memorosa bosniaca*, 211; *Pulsatilla*, a colony of, 181; *rupicola*, 270
 Annuals shown by Messrs. Carter at Chelsea, 255

Antirrhinum at Aldenham, 505
 Apple Allington Pippin, 560; Bismarck, 458; Bramley's Seedling, 549, 589; Charles Ross, 459; Cox's Orange Pippin, 561; Crawley Beauty, 532; Edwin Beckett, 496; Gascoyne's Scarlet at Aldenham House, 578; King of the Pippins, 560; Lane's Prince Albert, 565; Newton Wonder, 629; Rev. W. Wilks, 532; St. Edmund's Pippin, 561; Wellington, 503
Arbutus Menziesii, 623; *Unedo*, 564
Arenaria peploides, 365
Armeria cespitosa, 157; *fasciculata*, 479
Asparagus, home-grown, bundle of, 604; how to plant, 141
 Aster Robert Parker naturalised, 483
 Asters, Victoria, a bed of, 103
Auricula Golden Queen and *Myosotis Royal Blue* at Woodside, Chenies, 281
Auriculas and border Carnations shown by Mr. James Douglas at Chelsea, 256

Ball, C. F., portrait of, 514
Banksia collina, 611; *integrifolia*, 611
 Bed, a beautiful autumn, 125
 Beeches, an avenue of, 626
Berberis brevipaniculata, 482
 Birches, Silver, on the outskirts of a formal garden, 615
 Bodnant Hall, 583
 Border, an Iris, in a reader's garden, 588; mixed, 140; of mixed flowers, 208; of Phloxes and Watsonias, 115; of Phloxes and Pinks, 116
 Borders, flower, 388; flower, at St. Vincent's Cripples' Home, 360; herbaceous, at Goodnestone Park, 494; mixed, 353; of mixed flowers, 163
 Boscawen, Hon. John, 632
Brasso-Cattleya Schrödera Shrubbery variety, 129
Brunfelsia undulata, 112
 Bulb farm, a view in Messrs. Bath's, 451

Cæsalpinia Gilliesii, 546; *japonica*, 547; *pulcherrima*, 577
Calceolarias and *Schizanthus*, 255
Camellia reticulata, 73
Campanula Abundance, 402; *arvatica* (*acutangula*), 378; *portenschlagiana*, 90, 223; *portenschlagiana* and other plants at Stratton Park, 271; *pusilla* Miss Willmott, 187
 Candytuft, Gibraltar, a colony of the, 61
 Carnation Daisy Walker, 196, 579
Carpenteria californica, 432
 Catkins of Aspen, 151
Cattleya Triana Queen Elizabeth, 80
Centaurea pulcherrima, 111
 Cherry, Morello, a flowering tree of, on wall, 28; tree, ornamental, 230; wild, 236
 Chicory, plan of forcing bed, 225
Chionanthus virginica as a pot plant, 100
Chionodoxa Lucilæ sardensis, 484
Chrysanthemum arcticum, 545; *Aphrodite*, 579; *Phyllis Cooper*, 566
Chrysanthemums, border, 544
Cistus crispus, 299; *purpureus*, 99
Clematis montana rubens, 43; over garden arch, 448
Clematises at Shiplake Court, 316
Colchicum speciosum, 472; naturalised in grass, 447
Cornus macrophylla at Coombe Wood, 385; *Nuttallii*, flowers of, 374; *Nuttallii*, tree of, 375
Coronilla glauca, 300
Corylus Colurna, shoot of, 151
 Cosmos naturalised by roadside, 235
Crinum Powellii in a Wiltshire garden, 528
Crinum at Munstead Wood, 19
Crocus in grass at Kew, 158; *pulchellus albus*, 527
 Cup, Barr, new silver, for Daffodils, 164
Cyclamen Coum, a beautiful colony of, 101; *pseud-ibericum*, 133
Cytisus scoparius sulphureus, 67

Daffodil Olympia, 443
 Daffodils naturalised under trees, 473
 Dahlia Sappho, 477
Daphne Arborea, 260
Davidia involucreata, flowering shoot of, 145
 Delphiniums and Foxgloves, 511; and Pinks, 398; in a border of mixed plants, 102; in pots, 275
Deutzia Vilmarina, 564
Dianthus plumarius, 184; Spencer H. Bickham, 324
Dictamnus albus naturalised in the wild garden, 507
Dimorphanthus mandschuricus variegatus in a reader's garden at Claygate, 598
Dimorphotheca in the grass, 553
Erica australis, flowering spray of, 26; *carnea*, 40; *mediterranea*, a colony of, 109
Erigeron glabellus, 335; *mucronatus* 541; *Quakeress*, 575
Eryngium giganteum, 395
Escallonia langleyensis, a spray of, 315
Eucalyptus globulus at La Mortola, 616; in New Zealand, 552; *Gunnii*, a flowering spray of, 468
Eucryphia pinnatifolia, 363
Euphorbia Sibthorpii at Glasnevin, 408
 Flower garden, Lowther Castle from the, 627
 Flowers, autumn, at Goodnestone Park, 495
Forsythia intermedia spectabilis, 176
Fothergilla major, 77
 Foxgloves in the woodland, 603; Irises and hardy Ferns by a woodland path-side, 603; white, a colony of, 305
Fraxinus Ornus, 362
 Freesias, a beautiful group of, 138
 Fruit house at Langley Nursery, 475; room, interior of Messrs. Bunyard's 474; walls, semi-circular, 628
Galanthus nivalis, 122; *Scharlokii*, 456
 Garden and cottage, a transformed, 534; Heath, at Wisley, 462; spring, at Totley Hall, 364; sunk, at Regal Lodge, 559; the little kitchen, 411; view in, at Dalry, 457; view in small, in Berkshire, 399
 Gardens, view of racecourse, in New Zealand, 414
Gentiana ornata, 518
Globularia incanescens, 423
Godetia Lavender, 325
Godetias, Double Rose, 127
Greivillea juniperina sulphurea, 311
Gypsophila repens, 49
Hakea pinifolia, 599
Hamamelis mollis, 79
 Harris, E., portrait of, 10
 Harvey, F. W., portrait of, 431
 Heath, the Cornish, at Kew, 581
Hedychium gardnerianum, 610
Helleborus niger altifolius, 1
Hemerocallis Golden Bell, 350
 Horticultural Hall, New Zealand, 23
 Houseleek, Cobweb, in a reader's garden, 348
 Humogen and Coleus, 607
 Hurdle, a home-made, 146
Hyacinthus azureus, a colony of, 169
Iris filifolia, 390; *pallida dalmatica*, a colony of, 287; *Siberian*, by the lake-side at Kew, 533; *stylosa*, 75
 Irises, Japanese, and Gunneras, 341; Japanese, at Mountains, Witham, Essex, 362
 Japanese Windflowers by the lakeside, 497
 Jasmine, yellow, growing over a cottage doorway, 597
 Jeffrey, J., portrait of, 10
 Kew, a spring scene at, 194; a view in the hardy Bamboo garden, 222
 Kitchen garden, a pathway in, 7
 Laburnum, common, 246
Lachenalias, a vase of, 186
Lapageria rosea, 567
Lastrea dilatata in the Rev. W. Wilks' woodland garden, 327
Lathraea clandestina, 278
Laurelia aromatica, flowering shoot of, 218
 Lavender as an edging, 6; bushes, 372; harvest in a reader's garden, 420; hedge in a Surrey garden, 449
Leptosiphon densiflorus hybridus, 25
 Lilacs and hardy shrubs, effective grouping of, 88; at Bletchley Park, Bucks, 89
 Lilies, Arum, flowering by the waterside, 614; *Plantain*, 407
Lilium auratum, 4; in a reader's garden, 492; *Brownii*, 15; *candidum*, 16; *colchicum*, 51; *davuricum luteum*, 39; *giganteum*, 76; at Castleford, Chesham, 396; *Henryi*, 498; *Martagon album*, 52; *Parryi*, 499; *regale*, 27, 605; *sulphureum* grown by a reader in British Columbia, 541; *testaceum*, 64, 554, 595
 Lily, Madonna, in a border of fragrance, 625

Loganberry, the, 487
 London Pride as edging, 377
 Loosestrife, the Purple, 401
 Lupines and Irises, 245
Magnolia stellata, 150
 Mallow, Pink, 2
 Malopes, a border of, 123
 Mawley, Mr. and Mrs. E., portrait of, 521
Meconopsis Wallichii, 175
Mesembryanthemum crassulinum, 422
 Michaelmas Daisies, a border of, 461
 Morris, Sir Daniel, portrait of, 241
Myosotidium nobile in Somerset, 348

Narcissus Alchemist, 260; *Bonamy*, 209; *Caedmon*, 234; *Centaur*, 221; *cyclamineus hybrid*, 148; *minimus*, colony of, 420; *Mozart*, 220; *Sundew*, 221; *Whelp*, 199; *White King*, 233
Nepeta Mussinii as an edging, 424
 Nerine Rothschild, 539
Nymphaea Marliacea rosea, 198
Odontoglossum Georgius Rex, 354
Olearia insignis, 301
 Onions, a good bed of, 62
 Orchids shown by Messrs. J. Cypher and Sons at Chelsea, 253
Orchis latifolia, 438
Ornithogalum arabicum, 464
Osmanthus Delavayii, 232

Pæonia officinalis lobata, 351
 Pampas Grass with Cedar of Lebanon in background, 493
Passiflora edulis, 551
 Pathway, stone edgings to, 312
 Pea Defiance Marrowfat, 9
 Peaches, interesting method of growing, at Glynde, Sussex, 318
 Pear Marguerite Marillat as a cordon, 594
 Penjerrick, a view in the gardens at, 162
 Pergola, Italian, at Stratton Park, 272
Pernettya mucronata, 609
Phlomis fruticosa, 114
 Phlox, a well-flowered, 134
 Phloxes, a border of, 531
 Pink, a seedling, with fringed petals, 185; with plain edges, 185
 Pinks as an edging, 277; as edging to pathway, 376
 Pinus Armandii, 470; *Ayacuahuite*, 587
Pittosporum Colensoi pot-bound, 87
Plagianthus Lyallii, a spray of, 486
 Plan showing planting of carriage drive borders, 508
 Plans, two cottage garden, 136
 Plant, a winter-flowering, for the greenhouse, 599
 Plants, foliage, in an Australian garden, 372; raised from seed, shown by Messrs. Sutton at Chelsea, 254
 Polyanthuses at Woodside, Chenies, 280
Polygonum baldschuanicum, 41
 Poppies and summer-house at Westbrook, 413; Iceland, a colony of, 42; Shirley, 85; white, as cut flowers, 139
 Poppy, Oriental, Lady Frederick Moore, 91; Perry's Pigmy, 306
 Potato Prosperity, a good crop of, 128; sets ready for planting, 44
 Potatoes attacked by wart disease, 93; seedling, a pan of, 153
 Primrose plant, stages of development, 230
Primula Adonis, 224; *capitata*, a colony of, 124; *denticulata*, 161; *d. cashmeriana*, 97; *involucrata*, 197; *malacoides* Rose Queen, 104; *rosea*, 161; *sikkimensis*, 161; *Sino-Listeri*, 613; *tosaensis*, 266; *vinceiflora*, 242
Prunus Amygdalus, a young tree of, 160; *triloba flore pleno*, 17
 Puff-balls, giant, 452
 Pyracanthas, three, 570

Quercus acuta, 386
Renanthera Storiei, 445
Rhododendron compactum multiflorum, 172; *Fortunei*, hybrid of, 173; *maximum*, 530; *Nuttallii*, 290; *ochroleucum*, 291; *Vaseyi*, 302
Rhododendrons at Bignor Park, 557; hardy, grouped for effect, 174
 Rhubarb, forcing, 20
Ribes laurifolium, female flowers, 171; flowering spray of male plant, 170
 Rock and water garden at Woodside, Chenies, 282; garden at Friar Park, 210; bank at Woodside, Chenies, 283; hybrid Pinks in the, at Friar Park, 304; Messrs. Kent and Brydon's, at Chelsea, 248; Messrs. Pulham's, at Chelsea, 248; Messrs. Wallace's, at Chelsea, 247; Messrs. Waterer, Sons and Crisp's, at Chelsea, 250; Messrs. Whitelegg and Page's, at Chelsea, 249
Romulea rosea, 232
 Rosa moschata, 113, 519; *Moyesii*, fruiting spray of, 517; *Vorbergii*, 323

Rose Alberic Barbier on posts and chains, 425; *American Pillar* as a standard, 525; *Arthur R. Goodwin* as a weeping standard, 347; *Blush Rambler* clothing a wall, 432; and *Lavender* at Warley Place, 580; *Caroline Testout*, a rambling form of, 329; *Climbing White Pet* in a Berkshire village, 359; *Colcestris*, 352; *Conrad F. Meyer*, 328; *Cupid*, 330; *Electra*, 92; *Ethel*, 520; *Flame of Fire*, 523; garden at Markyate Cell, 568, 569; *Hadley*, 516; *Hoosier Beauty*, 204; *Lady Bowater*, 342; leaf and leaflet attacked by rust disease, 535; leaf attacked by black spot, 535; *Lemon Pillar*, 339; *Mme. Alfred Carrière*, 149; in a Surrey garden, 617; *Mme. Ravary*, 55; *Mrs. Franklin Dennison*, 601; *Modesty*, 467; *Pharisæer*, a bed of, 517; *Queen of Fragrance*, 340; *Queen of the Belgians*, 207; *Rêve d'Or*, 383; *Scarlet Climber*, 338; *Tea Rambler* growing over iron chains, 504
 Roses, Bulgarian girls gathering, near Shipka, 542; gathering, near Kazanlik, Bulgaria, 522; shown by Messrs. William Paul at Chelsea, 253; *wichuriana*, by the waterside, 317; climbing, 521
 Rudbeckia Newmanii in late summer, 624
 Russian monastery at Shipka, 543

Saintpaulia ionantha, 13
Salix babylonica by the waterside, 600
Saxifraga Grisebachii, 31; *Irvingii*, the new hybrid, 152; *lantoscana superba*, 400; *lingulata*, 188; *longifolia magnifica*, 30; *marginata*, 295; *pedemontana cervicornis*, 29
 Saxifrages and other rock garden plants shown by Sir Everard Hambro at Chelsea, 251
Scabiosa caucasica, 556
Scilla hispanica, 265
Scelopendrium vulgare crispum speciosum, 571
 Sea Pinks, a border of, 576
 Seats, garden, 212, 213
Sedum anglicum, 366; *spectabile*, 491
 Shrubs, informal groups of, at Shirley, 292
Sidalcea candida Rosy Gem, 506
Silene Hookeri, 389
Solanum ciliatum, fruiting shoots of, 56; *crispum*, 53
 Solomon's Seal and Lily of the Valley, how to force, 44
Sophora viciifolia, 508
Stachyurus chinensis, flowering shoots of, 182
Sternbergia lutea, 481
 Stocks, Admiration, 126
 Strawberries shown by Messrs. Laxton at Chelsea, 258
Styrax hemsleyana, a flowering spray of, 205
 Sweet Peas arranged for effect, 38; shown by Messrs. Dobbie at Chelsea, 252
 "Sylva," title page of first edition, 105
Syringa Juliana, 194

Terrace, step and brick, in a Surrey garden, 410
 Traps for mice, 577
 Traveller's Joy on the Pilgrim's Way, Surrey, 592
 Tree Heath at Wayford Manor, 288
Tropæolum speciosum, 68
 Tulip Bowment, 268; *Lena Light* and *Burgundy*, 269
 Tulips, border of, in a reader's garden, 509; Cottage, in an Old English garden, 485; Darwin, borders of, 529; shown by Messrs. A. Dickson and Sons at Chelsea, 256; shown by Messrs. Dobbie, exhibition, 267

Valerian, the Red, 54
Vanda luzonica, 563
 Vegetables, collection of, 426; shown by the Hon. Vicary Gibbs at Chelsea, 257
Verbena chamædrifolia, 510
Veronica spicata, 434; *s. alba*, 435; *virginica*, 259
Viburnum macrocephalum at Aldenham House, 336; *plicatum*, 384, 612
 Vines, ornamental-leaved, at Aldenham House, 66
 Wall, a retaining, 18; a rough stone, planted with Rock Roses, 591; dry, portion of, 38; dry, and border, 244; garden, a, in the making, 590; low, a, 602; opening through, 412
 Wallflowers in border at Lockinge, 5
 Water Elder, 469
 Water Lilies in a streamside garden, 437
Wistaria multijuga, 293
 Yew hedges and herbaceous borders, 500

THE GARDEN.

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JANUARY 2, 1915.

NOTES OF THE WEEK.

To Our Readers.—With this, the first issue of 1915, a new volume commences, and we take the opportunity of thanking our readers for their valuable co-operation and assistance so freely given in the year that has just closed. Interesting notes and photographs that have reached us week by week, often accompanied by letters of thanks and encouragement, especially since the outbreak of war, have been very highly appreciated, and those published have, we know, proved interesting and useful to an ever-increasing number of readers. A great many readers have also written for advice when confronted with garden difficulties, and it has been a pleasure to assist them in every possible way. Our thanks are also due to those who have supported our advertisers during the war. Nurserymen and seedsmen at all times have enough to do to make ends meet, and there is no doubt that they have suffered severely during the crisis.

A Beautiful Christmas Rose.—The flowers illustrated on this page are those of *Helleborus niger altifolius*, sometimes erroneously named *H. n. maximus*. It is, we think, the most beautiful of all the Christmas Roses, the large flowers being produced on stems a foot or sometimes more in height, and usually from two to six flowers on a stem. These are large, glistening white, with a beautiful rose pink blush on the more exposed parts, and often open during November and continue until well into January. The green flower and leaf stems are beautifully mottled dull crimson, and altogether it is as handsome and useful a hardy plant as one could wish for. Its value for cutting during the winter months is great, as the flowers last in good condition for quite three weeks when placed in water. We are indebted to Messrs. Barr and Sons of King Street, Covent Garden, for the flowers from which the illustration was prepared.

Olearia stellulata.—Some exceptionally large, well-flowered bushes of this fine shrub—the whole constituting one great colony—were noticed in flower last autumn in the gardens of the Horticultural College, Swanley, where in the loamy soil over chalk it appears to be perfectly happy. The plants were 5 feet or so high, the white, starry flower-heads arranged in terminal racemes so abundantly as to almost cover from view

the elegant habit of the subject. Occasionally we read of its tenderness, though in the gardens mentioned it has stood for years without a stain upon its character.

Dates of Horticultural Shows.—Owing to the war, so many committees of horticultural societies have not found it possible to fix the dates of their shows for 1915. Under these circumstances we do not consider it advisable

cultural Society, Mr. Chittenden showed an Apple with ten longitudinal grooves of about a quarter of an inch deep on the outside, the grooves being lined with russet. He called attention to the small fruits damaged internally by frost, which he exhibited earlier in the year, and pointed out that the grooves corresponded with the position of the primary vascular bundles which had been injured by frost. These bundles in the specimen

exhibited still showed signs of the damage, and the failure to grow normally was no doubt due to the interference in the sap flow brought about by this injury.

An Attractive Plant for the Bog Garden.—The majority of people are familiar with the well-known Creeping Jenny (*Lysimachia Nummularia*) and its decorative value for many situations, but few know Henry's Loosestrife (*Lysimachia Henryi*), a charming evergreen species from North-West China and of recent introduction. During the summer it is one of the most beautiful plants in the bog garden, where it delights to ramble about over the damp, cool soil in full sun, branching as it grows, bearing its golden yellow, cup-shaped flowers in large clusters almost hiding the plant, and remaining in bloom for a long time. As a carpet to *Lobelia fulgens* it is very effective. It appears to be perfectly hardy, and is very easily increased by cuttings put in now, by seed, or by divisions.

Fraudulent Booksellers.—The British Gardeners' Association is bestirring itself over the fraudulent booksellers who seem to have been particularly active of late. The usual procedure is for a traveller to call on young gardeners and induce them to pay a sum ranging from 5s. to a guinea as a first instalment for some important gardening work; or else, on the understanding that the vendor will send the whole work, which he has been able to obtain cheaply, for about a quarter of its value. Needless to say, the books never reach the young gardener, nor does he see the plausible



HELLEBORUS NIGER ALTIFOLIUS, ONE OF THE MOST BEAUTIFUL OF ALL THE CHRISTMAS ROSES.

to publish our usual almanac in which we have hitherto given the dates of the principal exhibitions. These will, however, as far as possible be published each week under the heading of "Forthcoming Events." We shall be glad if secretaries will kindly send us dates, when decided upon, for that purpose.

Frost Damage to Apple.—At the last meeting of the scientific committee of the Royal Horti-

cultural Society, Mr. Chittenden showed an Apple with ten longitudinal grooves of about a quarter of an inch deep on the outside, the grooves being lined with russet. He called attention to the small fruits damaged internally by frost, which he exhibited earlier in the year, and pointed out that the grooves corresponded with the position of the primary vascular bundles which had been injured by frost. These bundles in the specimen exhibited still showed signs of the damage, and the failure to grow normally was no doubt due to the interference in the sap flow brought about by this injury.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Banksian Roses.—If in what I wrote you about Banksian Roses, page 604, issue December 19, I said Fortune's Yellow, it was a slip. I meant Fortune's Banksian.—F. G. DUTTON.

Soldanella in Bloom in London Metropolitan Area.—You may be interested to know that a plant of *Soldanella alpina*, which I collected in the Alps when on a holiday in June, 1913, is now proudly showing two nodding mauve bells in my garden here. You will note that the vagaries of our climate have been too much for the *Soldanella* clock, for it evidently has mistaken the dry autumn for an alpine winter, and the present torrential showers for February "fill dykes." I

grow in almost any good garden soil, and the position, so long as it is open, does not matter much. They must, however, have ample space in which to develop. The plant illustrated was nearly two feet in diameter. One of the most charming garden pictures I have ever seen was composed of these pink Mallows growing between white Japanese Anemones, and I pass on the hint for others.—A. B. ESSEX.

Cuttings with Heels.—This is a very interesting subject. I fully agree with your correspondent "H. P.," page 594, issue December 12, in his remarks respecting cuttings severed just below a joint in the case of soft-wooded plants. Such cuttings root freely, and make rapid growth afterwards. Few cuttings of this kind inserted in August and September in cool soils, and in spring or even late in the winter in a gentle bottom-heat, fail; but I prefer in the autumn to put in

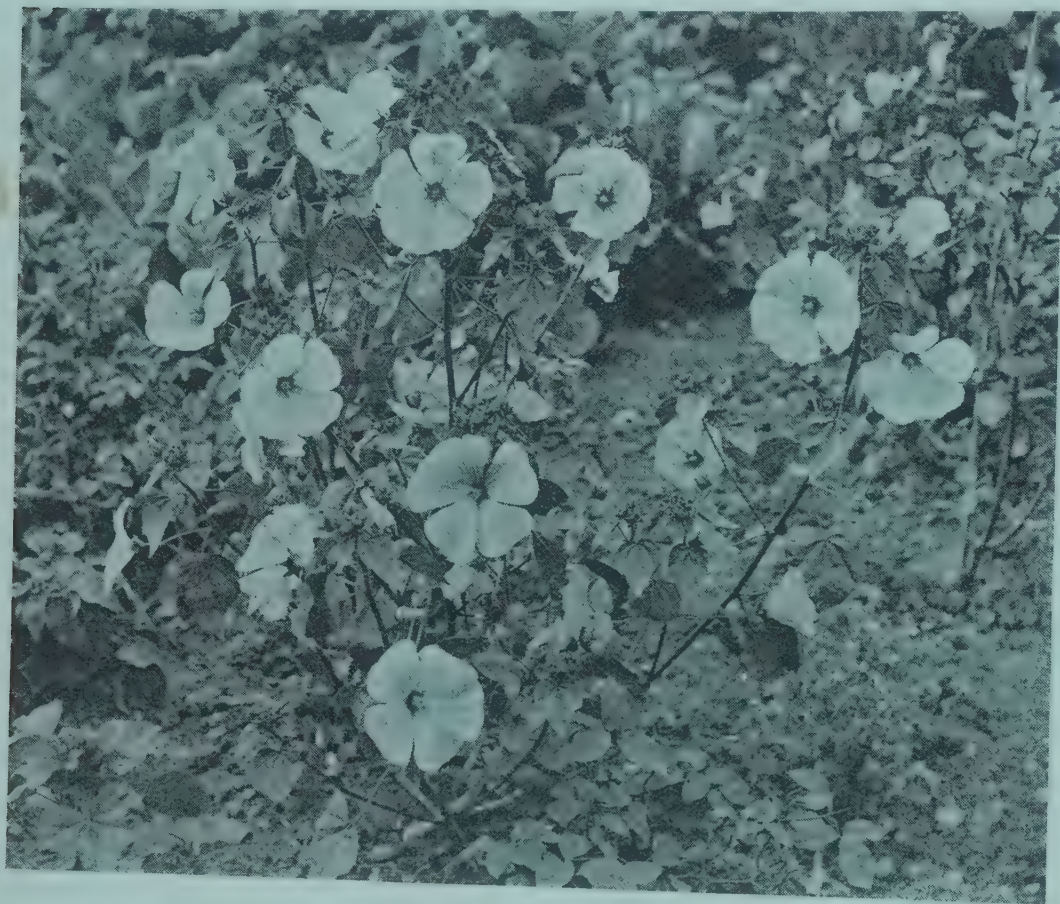
of the cult. If you require a mildew-proof *Rose*, plant *Gloire de Dijon*. Perhaps someone has seen this old friend badly mildewed; if so, let us have particulars.—JOHN W. HICKS, 4, Wellington Terrace, Sutton Coldfield.

Funkia subcordata alba odorata.—Some three years ago, in September, a London firm exhibited in Edinburgh a plant of this *Funkia* in flower. The plant attracted me, being the only pure white *Funkia* I had seen. Its fragrance and its late flowering also weighed with me, so I purchased a plant. Judge of my disappointment, however, when I say that, though I planted it under conditions where *Funkias* and hardy plants generally thrive well, it has not yet produced a single bloom, and, instead of developing, the plant has hardly held its own. I should be glad to know if any other readers of THE GARDEN have tried this Plantain Lily, and, if so, with what result.—CHARLES COMFORT, Midlothian.

Ginkgo biloba or Maidenhair Tree.—It was good to see an illustration of this unique tree in the pages of THE GARDEN, in which you did well to call attention to its ornamental qualities and its distinct nature. With regard to this latter feature it stands out quite alone, for there is not a single tree in cultivation that can for one moment be compared with it. The popular name of the Maidenhair Tree is a very appropriate one, as the leaves greatly resemble in shape the pinnules of that popular Fern. The scientific name of *Ginkgo* cannot, however, be viewed in the same light, for it is at best such an awkward sounding word as to lead one to think that *Salisburia adiantifolia* would have been much the better. Great interest is attached to this *Ginkgo*, from the fact that though it now stands quite alone, yet fossil remains have been discovered in systems that were in process of formation at a remote epoch of the earth's history, and which serves to prove that the genus is of astonishing antiquity and that the first appearance of its ancestral form antedates that of any other existing tree by countless ages. It has long been cultivated by the Chinese and the Japanese in the neighbourhood of their temples, but it does not appear to have been discovered anywhere in a wild state. A notable autumn feature in this country is the clear yellow tint assumed by the decaying leaves.—H. P.

—The illustration of this tree in THE GARDEN for December 19, page 607, does not present the characteristic form and is taken from a small inferior specimen. There are, at Cobham Hall, Gravesend, two specimens, either of which is nearly three times the size of the Kew example illustrated. The branches are semi-drooping through their whole length; many lie on the ground and turn up at the points. The trees are about a century old. They are in a private part of the pleasure grounds, and could only be seen by permission. It would be interesting to see an illustration of them. The *Ginkgo* has never been found wild. It is a survival, and almost a sole survival, from early carboniferous ages; but its distribution is a geological question of much difficulty. There is no doubt it owes its curious leaf to existence in an age when evolution had not attained to the rounded or curved leaf. The specimens at Cobham are believed to be surpassed by very few in the world.—KURSTOOT.

How to Plant *Crinum Powellii*.—In answer to "Enquirer," the above plant grows vigorously and flowers every year with us; while last summer an old bulb eclipsed all previous efforts by yielding three consecutive large spikes. We grow this



A SINGLE PLANT OF PINK MALLOW, A VERY BEAUTIFUL HARDY ANNUAL.

am endeavouring to keep up the illusion as long as possible by protecting the treasure by means of a "Sunbeam" Trap.—JAMES LATHAM, Hurstwood, Woodford Green.

Pink Mallows for Summer and Autumn Effect.—Although the pink Mallows are among the most useful and beautiful of all hardy annuals, one does not find them in many gardens. Why this should be so I have never been able to understand; and now that seeds will soon be ordered, the accompanying illustration will, I hope, induce many other readers to include in their list an order for a packet of seed. The plant illustrated was one of a hundred or so that were raised from seeds sown in the open the first week in April last year, and from the middle of June until well into September they gave us a wonderful display of their pink or rose coloured blossoms. For cutting we found these ideal. So far as my experience goes, these Mallows will

cuttings of *Roses* and many kinds of evergreen and deciduous shrubs which possess a slight heel. If properly inserted and attended to, they result in very fine, sturdy specimens.—SHAMROCK.

Mildew-Proof *Roses*.—Having found that certain *Roses* are attacked by mildew in one locality and immune in another, that in some soils the pest is more prevalent than in others, and that newly planted *Roses* are less liable to an attack than established plants, there is nothing more to say except that the grower whose enthusiasm does not carry him sufficiently far to spray once a week with Abol or some other preventive—if there is one—had better leave the ranks of the faithful and take to *Chrysanthemums* or *Carnations*, or might I suggest *Sweet Peas*. Spraying once a week is one of the pleasures of *Rose* culture. What credit is due to a rosarian who has no pests to overcome, no difficulties to surmount? These very difficulties are the zest

Crinum on a west border, and the planting was from 4 inches to 6 inches deep. The first three or four years after planting, a small mound of ashes was placed around the dying neck of the plant when a frosty spell seemed upon us; but during the last two very moderate winters no protection has been given. Of course, we should not take needless risks if severe weather threatened, though it is my opinion that this plant is hardier than has been supposed, and I would venture to assert it would come safely through any winter uncovered, with shallow planting, if the situation is warm, non-clayey and well drained. Ours is a made-up border, and cannot boast of more than 18 inches to 20 inches of good soil; below that depth it is clay, and no doubt our plants have reached it. The very deep planting advised by some authorities may be due to the fact that there has been some doubt about the hardihood of this Crinum, and assuredly deep planting would minimise winter risks. Mr. Van Tubergen's directions, though seemingly at variance with others, may probably be followed with equal success, for they are at one with the advice that used to be given by an acquaintance of mine in the catalogues of a firm now no more. His directions were: Plant in a hot place, leaving one-third of their length out of the ground, but give plenty of water in summer and protection with Bracken, &c., in winter. To sum up, it is plain that shallow planting means more water in summer, more covering in winter; deep planting, less water and less or no covering.—C. T., *Ken View Garden, Highgate.*

— From experience I can assure "Enquirer" he need have no misgivings if he has followed the directions of that gardeners' *vade mecum*, Robinson's "English Flower Garden." For the last twenty-five years I have seen Crinum *Powellii* grown to perfection deeply planted in the garden of a relative, and even in my own wretched Surrey sand I have grown plants thus with some success. It is important to remember when planting deeply to give a good depth of rich soil under the bulbs. In winter I cover the clumps with a foot of ashes; this is removed in the spring and the plants mulched. They have withstood 30° of frost. They should be well watered continually in the summer and occasionally given liquid manure. If "Enquirer" would obtain the results he has seen at Burford, I would advise him to have patience and wait, and if he has planted his bulbs properly, on no account to interfere with them, but leave them to establish themselves, which may take a few years.—C. B.

Hardiness of Cyclamen persicum.—I think it is usually considered that the Persian Cyclamen is a tender subject, and certainly I have hitherto had that impression. Now I am not quite so confident. Having between two and three dozen surplus plants this autumn, I placed them in a small cold frame and thought no more about them until December 7, when I wished to have the pots emptied and housed. On looking into the frame, every plant was perfectly fresh and healthy, although on several occasions we registered 10° of frost, and no protection other than the sash was afforded. I have retained three of the plants to note how they will now thrive in a greenhouse.—C. BLAIR, *Preston House Gardens, Linlithgow.*

FORTHCOMING EVENT.

January 5.—Royal Horticultural Society's fortnightly Meeting and Exhibition, Vincent Square, Westminster, 1 p.m. to 6 p.m.

SOME HARDY LILIES.—I.

OF all the plants cultivated in British gardens, there is no genus in which so much disappointment is incurred—none upon which so much money is wasted—as the Lilies. If there were no remedy for this—if these plants were really intractable—then the only sound advice to be offered to the amateur would be to leave them alone. But whereas the nature of the mischief which wrecks so many hopes requires only to be understood in order to overcome it, the following notes are offered by one who, having undergone repeated failures during long years of endeavour, has been led by the counsel of an experienced friend into the path of success with some species.

The difficulties in cultivating Lilies arise mainly from two sources. First, although the genus is a small one compared with many others, containing, so far as is known at present, only between seventy and eighty true species, these species exist in a natural state under widely differing conditions of soil, temperature, moisture, exposure, &c.; wherefore any attempt to cultivate them must end in disappointment, unless provision be made to meet their requirements in those respects. Secondly, with the exception of a few species long established in this country, such as the Madonna, the Orange, the Tiger and the common Martagon Lilies, the vast majority of bulbs offered for sale have been imported from distant lands, and arrive in such a condition of impaired vitality as renders them most vulnerable by disease or decay. The rootlets, delicate in some species, fleshy in others, either have been deliberately shorn off by the packers (as is usually done to bulbs exported from Japan), or have dried up and become functionless during transit. Each year tens of thousands of Lily bulbs, purchased in this enfeebled state, either are planted in the autumn in the open border, where they are expected to survive the drenching of a British winter, or are bought at the spring sales and set out at once to provide a summer display. Such treatment of dormant bulbs ensures disaster. Of those planted out in the autumn, many are never seen again; they simply rot in the ground. Those that survive may throw up flowering stems from material garnered under a foreign sun; but in nearly every instance it is a swan song. In the second season their place will know them no more.

The only chance of prolonging the lives of imported bulbs is to treat them as invalids, keeping them in hospital during six months or a year after their arrival. On no account should they be planted out in the open at once. Each bulb should be placed in a 6-inch or 8-inch pot and kept in a cold frame till the pot is full of new roots. Imported bulbs, especially those from Japan, are too often infested with mites, or with the deadly fungus *Rhizopus necans*, to destroy which they should be dipped in a 1 per cent. solution of salicylic acid and dusted with sulphur before potting. Some charcoal or wood-ashes should be laid over the drainage before filling the pot three-quarters of its depth with soil suitable to the species, mixing in ground lime for those that like it, and scrupulously withholding it from those that dislike it.

Bulbs treated in this manner after arriving in the autumn will probably be found in the following May to have sent up more or less vigorous shoots. This behaviour on the part of base-

rooting Lilies—that is, Lilies which send out roots only from the base of the bulb, like the common Orange Lily, *L. croceum*—is a sign that they have benefited by the rest. If, therefore, the pots are found to contain fresh, healthy roots, the bulbs may be planted out carefully in the place where they are intended for permanence; and, be it remembered, permanence is of cardinal importance in Lily culture, all species more or less resenting disturbance, some of them intensely. Do not be disappointed if the display in the first season of flowering comes far short of expectation. The bulbs have passed through the crisis of removal, which imposes a severe strain on their vitality; indeed, prudent gardeners will not allow the more sensitive species to flower in their first season, but will remove the buds so that the whole stream of nutriment shall be diverted to the bulb. This sacrifice of a year's blossom will ensure ample compensation in following seasons.

Stem-rooting Lilies—that is, Lilies which, like *L. auratum*, send out roots around the base of the stem as well as from the base of the bulb—require more cautious treatment. The appearance in spring of a strong shoot sent up from a bulb potted in the previous autumn must not be interpreted as proof that the Lily is ready to take its place permanently in the open. If the contents of the pot be carefully turned out, it will probably be found that such roots as it contains are those sent out from the base of the new stem only, and that there are no basal roots whatever, showing that the bulb is expending the material gathered in the previous summer, without replacing it with fresh nourishment. The stem will grow, fed primarily from the bulb, and secondarily by the roots it has itself sent out. There will be a fair, perhaps a fine, display of blossom; but when that is over and the stem dies, the bulb will have disappeared. The only safe treatment, therefore, of stem-rooting Lilies in their first season is to fill up the pots with soil, plunge them in the open air in a place where the bulbs will be protected from scorching sun, and remove the flower-buds so soon as they become visible. Drastic discipline this, and to the amateur accustomed to deal with such facile subjects as Narcissus, Crocus and the like, all these preliminaries may seem fussy and superfluous; but in the treatment of Lilies success with this matchless genus brings a reward rich enough to indemnify one for extraordinary trouble.

Having experienced the usual result of unintelligent attempts to coax certain Lilies into permanent vigour, having met with much discouragement and failure, and, after many seasons, been led to see the error, or some of the error of my ways, I can perhaps help other amateurs by explaining what are the chief faults to avoid in managing those species with which I have succeeded. I shall only presume to write about those Lilies of whose behaviour I have had personal experience, either in my own garden or the gardens of my friends. There are many species which I have not yet ventured to handle. About these I must keep silence, referring readers to the invaluable cultural treatise on the genus by Mr. A. Grove—"Lilies," by A. Grove (Present-day Gardening, London: T. C. and E. C. Jack, price 1s. 6d.)—who, had his lot been cast among an Oriental people, would assuredly have been known to them as the Father of Lilies. In his garden near Henley I have seen the delicate novelty *L. Kelloggii* and *polyphyllum* growing with the grace and flowering with the freedom of a common

Martagon, the stately *L. Parryi* swinging its golden bells on wands 5 feet and 6 feet high, besides other fastidious foreigners which are doomed to perish inevitably under less sympathetic and experienced hands. What follows, then, is far from being a comprehensive review of the genus; only a notice of some of the more desirable species, with suggestions as to their management. HERBERT MAXWELL.

(To be continued.)

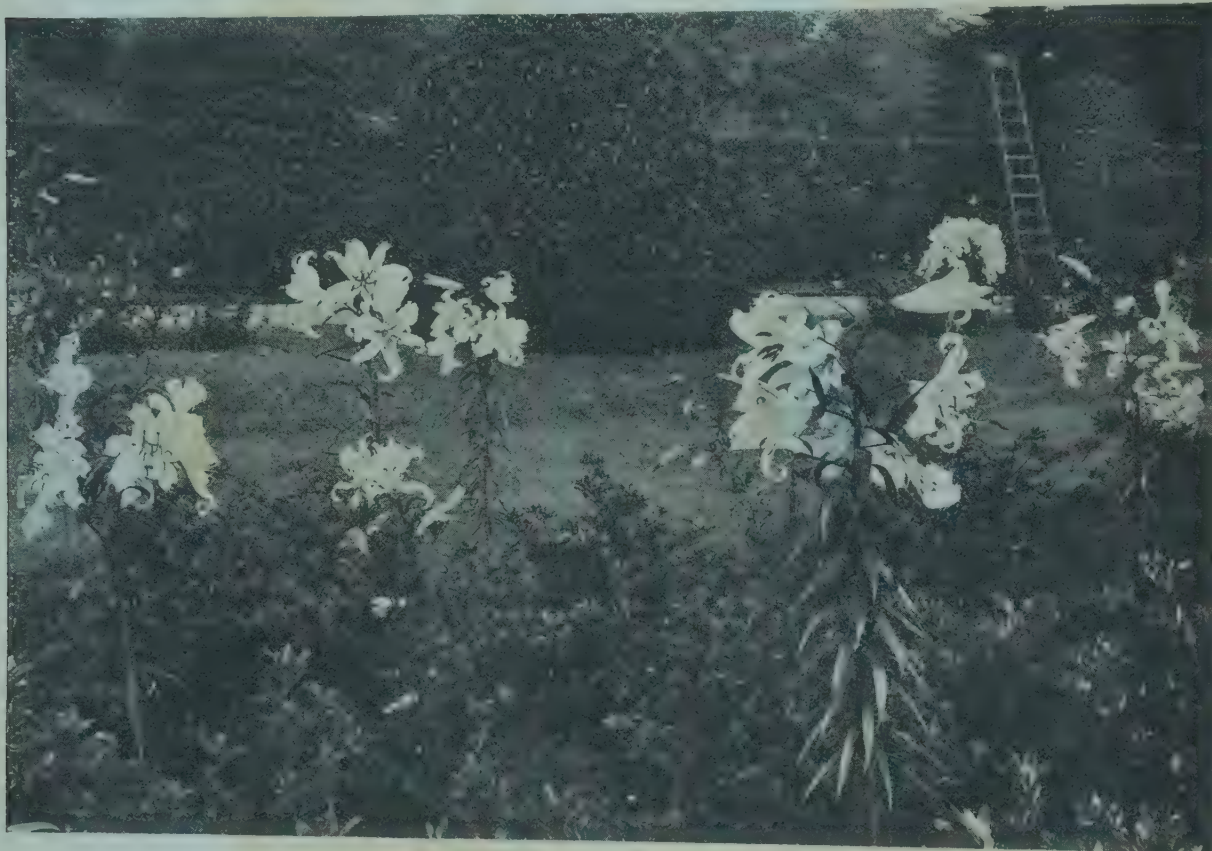
LIVING PESTS IN DAFFODIL BULBS.

I WAS very glad to see last autumn, in one of the ordinary Daffodil lists, a few words of warning from the pen of Mr. Charles E. Shea, who, although best known to our readers as a great rosarian, is, nevertheless, a grower of Daffodils of no mean order. His scientific leanings have led him to watch the varied pests to

I refer to *Eumerus lunulatus*, which at present not only troubles the stomachs of the plants, but, according to some vigorous letters which appeared not a hundred years ago in the pages of a famous and learned gardening paper, the heads of the unfortunate growers as well. Then there is the caterpillar of the swift moth (*Hepialus lupulinus*), which seems to have a partiality for the young roots, which it devours, at the same time often taking a bit out of the bulb as well. This beast, although it is the largest enemy, is the one that gives us the least concern, for it is not a very widely spread or frequent visitor. I am rather disposed to say that the living pests are to be feared in the inverse ratio of their size. Thus, first, the aforesaid caterpillar. Secondly, the merodon, which is not very dissimilar on the wing to a drone fly or a honey bee, did not the curious whistling noise and the lightning dashes of its flight unmistakably mark it—rather should I have said the merodon grub, for it is this dirty white, fat, black-

sive, and Mr. Shea is a lucky man if his beds are immune. Possibly he did not mention it because he considered it to be a scavenger that only appears when something else has done all the damage—when, it may be said, its presence is rather a blessing than a curse; but about this I have my doubts. Fifthly, and lastly (as I am not going to talk about an animal that worried Mr. Selkirk's bulbs at Sydney last year; for enough is as good as a feast, and without bringing this into my pot-pourri of living pests I will have enough to say), there is *Tylenchus devastatrix*, which, notwithstanding this mouthful of a name, is a diminutive eelworm only a twenty-fifth of an inch long, and of slender proportions and build, but which, I am disposed to think, is the most to be feared of all the living crew that I have enumerated. Although it is said by some observers to be only a scavenger, I am almost certain that this is not so, for the tiny worm seems to attack firm, healthy bulbs, entering, as a rule, from the top and

working its way down the leaf courses until it eventually gets to the basal plate, which is, to the family's taste, the tit-bit of the bulb. I have submitted samples more than once to two independent experts, thinking that their report would be "*Fusarium bulbigenum*." But no; every time, "No trace of *Fusarium*, but plenty of eelworms." Both the Board of Agriculture and Fisheries and the Department of Agriculture and Technical Instruction for Ireland have issued leaflets on this eelworm; but whereas the former only incidentally refers to its presence in "Hyacinths and other flower bulbs" as well as in Onions, the latter is headed "Eelworms in Narcissus Bulbs." It contains the result of elaborate trials between October, 1912, and November, 1913, the objects of which were to (1) determine whether infection takes place in the soil or when the bulbs are stored; (2) its method or means of entrance; (3) how they may be killed without injuring the bulbs; and (4) how attacks may be prevented. The pamphlet is a long one; but without traversing all the ground which it covers, the results may be summed up as follow: By treating lifted



LILIIUM AURATUM IN A BED OF LOW-GROWING EVERGREEN SHRUBS.

which, alas! this flower is now, as it were, the heir with a thoroughness and interest which are not given to everyone. Hence his cry of "Wolf!" is one to which I respectfully urge my fellow-growers to pay the greatest attention. As he reminds us, it was once upon a time perfectly true to say that the Narcissus had but "one insect and one disease" to contend with. To-day, however, it would only be a "Turkish wireless" that could make such a statement. It is, I very much regret to say, quite as bad as that; for there are five living beasts who have found the Daffodil bulb in one state or another a toothsome morsel, and who seem to be able to impart to succeeding generations of their families their acquired taste. These are Merodon equestris, as I suppose we must begin to call the large Daffodil fly, since within the last few years another winged beast of lesser proportions and of quite different ways has begun to make serious attacks upon our bulbs.

ended beast that does all the damage, because he will at the same time make a house and a meal of any Daffodil bulb that he comes across, and his mother takes care that there is always one at hand when he is born. Thirdly, there is the small Narcissus fly, or, as it is generally spoken of, the Eumerus. This is like a small, square-headed and square-tailed—if I may use such an expression—house-fly, almost black in colour, a low-flyer and fond of taking fairly long rests on the leaves or the ground hard by, when, I presume, the eggs are laid, which in time become small-looking merodon grubs, only known to us, I fear, when they (for there are a good many as a rule) have taken possession of a bulb. Fourthly, there is the mite—a small, almost transparent, white animal, built up of circles like the man in the advertisement of Dunlop tyres—ivory white in colour, with two black spots on the back. I am afraid this beast is becoming increasingly aggres-

sive, and Mr. Shea is a lucky man if his beds are immune. Possibly he did not mention it because he considered it to be a scavenger that only appears when something else has done all the damage—when, it may be said, its presence is rather a blessing than a curse; but about this I have my doubts. Fifthly, and lastly (as I am not going to talk about an animal that worried Mr. Selkirk's bulbs at Sydney last year; for enough is as good as a feast, and without bringing this into my pot-pourri of living pests I will have enough to say), there is *Tylenchus devastatrix*, which, notwithstanding this mouthful of a name, is a diminutive eelworm only a twenty-fifth of an inch long, and of slender proportions and build, but which, I am disposed to think, is the most to be feared of all the living crew that I have enumerated. Although it is said by some observers to be only a scavenger, I am almost certain that this is not so, for the tiny worm seems to attack firm, healthy bulbs, entering, as a rule, from the top and



FOUR GOOD WALLFLOWERS:

Yellow: Yellow Phoenix.

Purple: Ellen Willmott.

Red: Fire King.

Crimson: Blood Red.

It only remains now for me to suggest means of how best to combat the other four pests. The mite may be dealt with in the same way as the eelworm. The caterpillar must be searched for by digging up bulbs which have failed to appear above ground or where the foliage remains stunted and unhealthy-looking. Both the flies may be trapped by nets during periods of sunshine in the warm days of May, June and July. (A sharp lad soon learns to detect and catch them; but the work must be done daily.) As a further means of catching them, every bulb before planting should be carefully felt all over, and if any part seems suspiciously soft, that bulb should be cut open and examined. In expensive varieties this must be done very cautiously, as it is often possible to save a bulb, or, at least, part of it. I am doubtful if immersion in water before planting does any good. I have never tried it myself, for, I am thankful to say, we have but very few, and the net and examination by feeling the bulbs have always proved efficacious. There is a good account of Merodon equestris in the Royal Horticultural Society's "Daffodil Year Book" for 1915, which everyone interested in the subject should read.

JOSEPH JACOB.

COLOURED PLATE.

PLATE 1503.

WALLFLOWERS AND THEIR CULTIVATION.

DURING the next week or two gardeners will be busy compiling the list of seeds to be sown during the coming spring and summer, and it is to be hoped that none will be minus a few packets of Wallflower. It has been a favourite in our gardens for many years, the fragrant blossoms appealing to us more strongly than many of more garish colours that do not emit fragrance worthy of the name. Fortunately, the Wallflower is easily cultivated, and a packet of seed will, if properly treated, provide several hundreds of sturdy plants. Although strictly a perennial, the Wallflower is usually treated as a biennial, *i.e.*, the seeds are sown one year to provide flowering plants for the next, and after the blossoming has ceased these are discarded. Where, however, they are more or less naturalised on rock-work or old walls, the plants are allowed to remain for many years, and treated in this way they are quite in keeping with their surroundings.

It does not seem to be generally known that there are two distinct sections of the Wallflower, one characterised by the Early Paris type, and the other by the ordinary Blood Red, such as may be found in many cottage gardens throughout the country. The Early Paris Wallflowers should be sown outdoors early in April, and the seedlings pricked off 10 inches or rather more apart as soon as large enough. These are subsequently best left alone, and if the fates are kind they will commence to flower in August and continue all through the winter. For several years we have

been able to gather quite good blooms on Christmas Day. Although the flower-spikes are rather small, the blossoms possess the true Wallflower fragrance and they are obtainable in yellow and warm brown colours. Midway between these and the ordinary Wallflowers comes Yellow Phoenix, so well portrayed in the coloured plate presented with this issue. It does not commence to flower so early as the Paris types, but in a mild winter can be had in bloom at Christmas if the seeds are sown in April. It is a great improvement on the Paris varieties, inasmuch as the flowers and spikes are much larger and the plants bloom freely in spring, long after the others have finished.

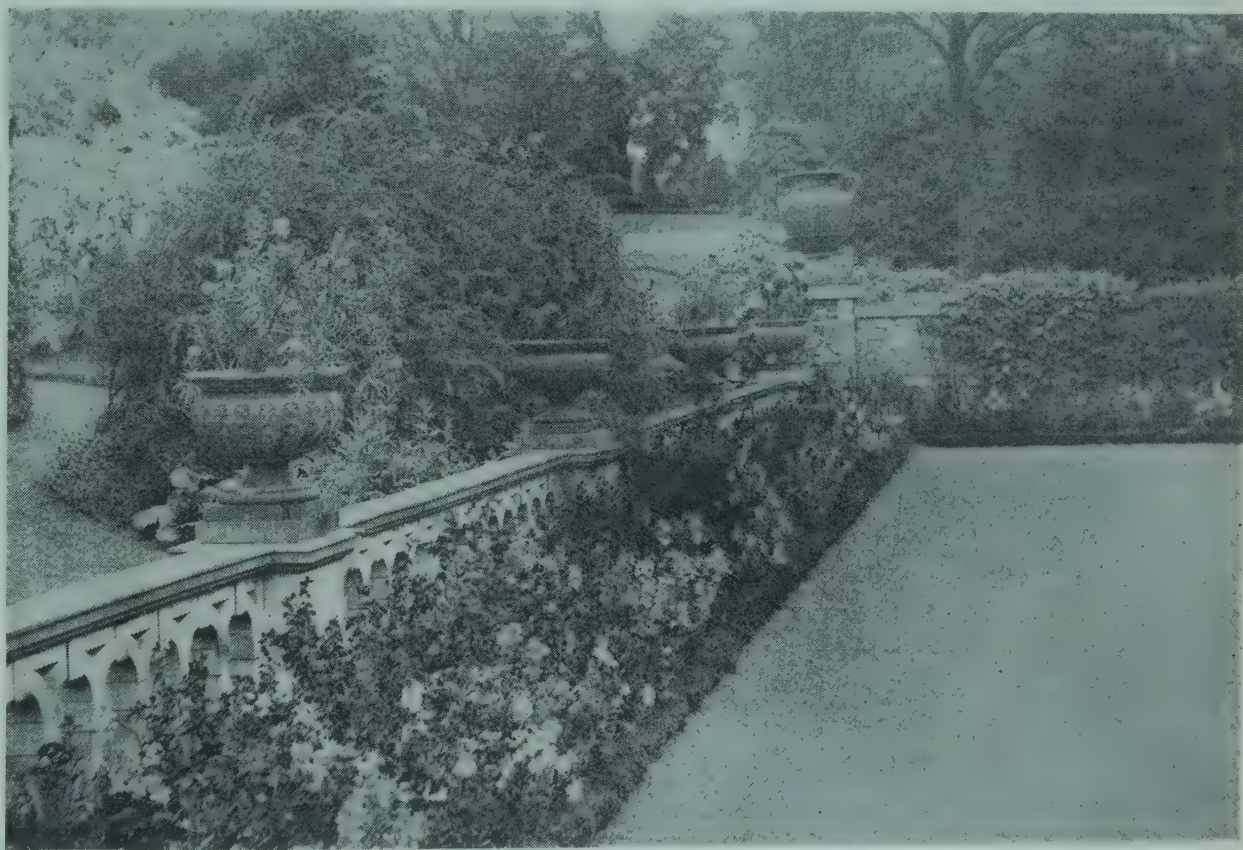
When we come to the ordinary May-flowering varieties, such as Blood Red, we find some diversity of opinion as to the best time to sow the seed. Some good gardeners favour April, and others, equally as good, the second week in June. If the happy medium between these two is selected and the seeds are sown about the second week in May, good results may be anticipated in nearly all districts. Outdoor sowing, in drills 1 foot apart, is best; and as soon as the young plants are about two inches high they ought to be transplanted, 1 foot apart each way, in soil that is moderately good but not over-rich and which has been trodden fairly firm. With the advent of early October, when spring bedding has to be arranged, the plants can be lifted with good balls of soil and roots and planted wherever they are required to flower.

There are now a good many varieties to select from. In brown shades Harbinger and Vulcan are good; Blood Red for crimson; Ellen Willmott, purple; Yellow Phoenix and Belvoir Castle,

SWEET LAVENDER IN THE GARDEN.

IT is impossible to conceive an English garden without Lavender. One never makes a new garden without using it in some position, and the situations in which it can be grown with advantage are numerous. An old garden without it would lack an essential charm. It is one of the few plants that can survive the ignominy of being common in these days of perpetual craving for novelty; indeed, it is among the few that are sought after because they are common. In its way it is as essential as grass and paths, and to every garden-lover it conjures up a picture, perhaps of an old-world garden we used to know with its Pinks, Sweet Williams, Madonna Lilies, Cloves and Moss Roses; or of some delightful old thatched cottage where Jasmine, Honeysuckle and Eglantine entwined over the doorway; or, indeed, of quiet hours in country houses where from January to December its fragrance permeated the snowy whiteness of household linen. Its popularity is not to be wondered at when one considers its many attractions — delicious fragrance, easy culture, hardy enough to withstand the severest winter, a colour that attracts most people and repels none, and cool, grey foliage that can be used indiscriminately everywhere and in association with anything, and at no time of the year ugly.

Quite apart from its value for perfumery, its garden uses are numerous. No plant is more



A BORDER FILLED WITH WALLFLOWERS IN THE GARDENS AT LOCKINGE, BERKS.

yellow; and Fire King, red. The last named is comparatively new, and is one of the most beautiful Wallflowers that we know. All the flowers from which our coloured plate was prepared were kindly supplied by Messrs. Sutton and Sons from their trial grounds at Reading.

valuable in the herbaceous border, where it can be made the groundwork of many delightful colour schemes. A group of *Lilium candidum*, Lavender and pink *Antirrhinums* is particularly effective; or *Erigeron Quakeress*, *Pentstemon Myddelton Gem* and a dwarf Lavender, with

Campanula carpatica Riverslea and *C. persicifolia alba*, forms another pretty combination.

For clothing banks that are on the dry side it is equally useful, and can, if desired, be kept trimmed down to a smooth, even surface, providing it is cut at the right time; early September is the best, as it gives it time to make sufficient growth to look neat all the winter, and with most varieties the flowering period is nearly over by that time. For low hedges it is also useful, particularly where a sense of division rather than seclusion is necessary. Used as an edging to long, broad borders it makes an excellent foil for taller subjects behind, and, trimmed once a year, remains quite neat without getting too rigid in appearance, the dwarf forms being best for this purpose.

The Best Kinds.—The nomenclature of the varieties at present in cultivation appears to be a little undecided and to lack authority; indeed, we find the same thing cropping up under half a dozen different local names and, worse still, several distinct forms bearing the same name. They have all probably originated as seedlings from the two species described in an old gardening dictionary published in 1736, as follows: "*Lavandula Spica*, the common lavender, closely branching from bottom 2 or 3 feet high, small spear shaped entire leaves, and from the ends of the branches numerous, long erect naked spikes of flowers, various shades of colour white to blue." The broad-leaved form is described as the species. There are two varieties given as with narrow leaves, blue and white, the narrow-leaved varieties being described as "in greate esteem for putting among cloaths, and distilling and other oeconomic uses." There is also a dwarf form of the broad-leaved species described, which is probably that shown in the accompanying illustration, and now known as *Lavandula Spica nana compacta*. The only other species described in the old book as for out of doors is the French Lavender (*Lavandula Stœchas*), very branching, 2 feet or 3 feet high, very narrow, spear-shaped leaves, pointed and hoary, opposite, and all the branches terminating in short, bushy spikes of purple flowers. There is also a white variety.

With reference to those now in cultivation, there appear to be three species—*Spica* and *Stœchas*, originating in the Mediterranean regions; and *vera*, common to Southern Europe, *vera* and *Spica* resembling each other except in the breadth of the foliage, that of the latter being broadest. For some reason the broad-leaved is usually offered as English, the narrower-leaved as Dutch, the dwarf form of *Spica* as *nana compacta*; while a low-growing, compact, narrow-leaved variety is commonly called dwarf blue.

The broad-leaved is much the best for hedges or permanent edgings, as it retains its foliage well throughout the winter. The narrow-leaved form is inclined to get shabby and

thin through the winter, but recovers well with the growing season and flowers longer. The foliage is very grey.

Two recipes for Lavender water are: One pint of rectified spirit, 4oz. of distilled water, 3 drachms of oil of lavender, 3 drachms of orange-flower water, 5 minims of oil of cloves, the same quantity of oil of cinnamon, and 4 minims of otto of roses mixed and allowed to stand for twenty days; then filtered through magnesium carbonate and kept two or three months in bottle before using. The other is: Essence of musk, 4 drachms; essence of ambergris, 4 drachms; English lavender, 6 drachms; oil of geranium, 2 drachms; oil of cinnamon, 10 drops; and spirits of wine, 20 oz.



LAVENDER AS AN EDGING TO A PATHWAY IN MESSRS. R. WALLACE AND CO.'S NURSERY.

An old recipe for Lavender bags is: "Take of ye lavender flowers a full half a pound, but no stalks therewith. Of dried thyme and minte a half an ounce of each, and of common salt one ounce, together with one ounce each of ground cloves and carraway seeds. Mix quite dry and put in silk bags, and it will perfume the drawers and linen very nicely." Doubtless there are a number of other old recipes in existence, and it would be interesting if those readers who have them would send them to the Editor for publication. We cannot have too much information about this fragrant shrub, which, I think I may safely say, is a universal favourite.

G. D.

FLOWERS IN THE KITCHEN GARDEN.

THE practice of growing hardy flowers in the kitchen garden has been very largely extended during recent years, and in most good establishments we now find the main pathways of the vegetable quarters bordered on either side with bold masses of herbaceous and other hardy plants. Indeed, in some kitchen gardens that I have seen during the last year or two, the flower borders were scarcely inferior to the herbaceous borders proper, and lent an air of calmness, beauty and interest to a portion of the grounds that was wont to be considered dull and not worthy of visitors' attention. Undoubtedly the primary reason for cultivating flowers in the kitchen garden was to provide plenty of material for cutting, so that the dwelling-house might be well and freely decorated; but by devoting the borders alongside the pathways to the plants, a twofold object is achieved. Flowers in abundance are always available for cutting, and, as already stated, the kitchen garden is rendered beautiful and more interesting than it would otherwise be.

Frequently these flower borders are arranged in front of espalier fruit trees that enclose the vegetable plots, and where this is so, some care needs to be exercised in planting the flowers, otherwise the fruit trees will suffer. Thus, very tall and coarse-growing plants would not be permissible, nor would it be advisable to plant within 18 inches or 2 feet of the fruit trees, unless no value is placed upon the fruit. In some few gardens the trees are old and are retained solely as a screen, their flowers in spring adding a touch of colour to the borders. In such instances they need not be taken seriously into account when planting the herbaceous flowers, though it must even then be remembered that the roots of plants and trees will contest strongly for the nourishment that the soil contains. The most important point to bear in mind when forming flower borders in the kitchen garden is their width. This will, of course, vary considerably with the length of the path; but, even with the shortest pathway, a border less than 5 feet wide will not be of much service. When it must be of less width it resolves itself into an edging, and should be treated as such, a broad belt of some hardy annual or low-growing perennial being all that is permissible. Generally, however, a border 8 feet wide is a useful size, though where the pathway is a very long one, and the ground can be spared, it may extend another 2 feet. In borders of these widths nearly all kinds of

herbaceous, bulbous and annual flowers may be successfully grown, the actual kinds being usually determined by the material available. The good gardener will see to it that those most useful for cutting will predominate, any that are not suitable for this purpose being merely used for filling temporary gaps or as low-growing vegetation for the edges of the borders.

At Aldenham House, where grass verges used to edge the flower borders in the kitchen garden, they have been replaced by a rough stonework edging, medium-sized pieces of sandstone being sunk into the ground so as to form excellent

a good deal of heavy work has to be undertaken in the kitchen garden. For this reason, except in gardens of large size, such arches are best kept to the pleasure grounds. Rose pillars are, however, suitable for the kitchen garden flower borders, though even these must not be overdone.

In a few gardens annual flowers only are used, so that the borders are practically free of vegetation during the winter months when heavy work, such as the wheeling in of manure or new soil, is in progress. There are now so many good annuals available that it is not difficult to create a pleasing effect with them alone, though where preference

LATIN NAMES AND GOOD RESOLUTIONS.

AS another New Year has just dawned, the time arrives for making new resolutions. To the gardener the period of short daylight hours and sodden or frozen flower-beds is peculiarly well adapted for thinking over past—well, we will not say *failures*, but—performances that have not come up to our expectations, and for thinking out new and fascinating schemes. This year it is an occupation full of novel—let us hope



FLOWERS BORDERING A PATHWAY IN A KITCHEN GARDEN.

little pockets for many kinds of alpines. Not only is the effect pleasing, but the pathways are rendered exceedingly interesting over many months of the year. The stone is almost hidden by the vegetation, which is allowed to scramble over on to the pathway and so avoid any impression of formality. This informality of edges is well shown in the accompanying illustration, though in this instance stonework is not used.

In many gardens rustic arches, clothed with Rambler Roses or Clematis, are placed over the pathway, and, if properly situated, add considerably to the beauty of the garden as a whole. But such arches must be of a lofty and broad character, ever bearing in mind that during the winter months

is given to the old-fashioned kinds, such as Mignonette, Honesty, Larkspurs, Stocks, Marigolds, Sweet Alyssums and Clarkias, the borders are endowed with greater interest, the fragrance of many of the flowers being not the least item in their favour.

The extent to which these flower borders may be varied will rest more or less with the taste of the owner, always bearing in mind that they are an adjunct to, rather than a part of, the kitchen garden itself. If this is fully remembered, there is no reason why the kitchen garden should not be made far more interesting and beautiful than is usually the case. This is especially so where there is ample space available.

H.

we may say unique—difficulties. Those who cannot leave gardens and homes for active service must feel it is their duty to keep business running as usual during alterations to the map of Europe, in horticultural as well as other affairs.

Even though dividends dwindle or remove themselves to still distant years, as though looked at through the wrong end of the telescope, one of the best resolutions is to guard against making the struggle harder for others. We may do this by trying to prevent both the cancelling of orders to nurserymen and the discharging of gardeners in our employ. We can make a virtue of necessity, and take some credit for foregoing our usual spring order for rare rock plants from Bavaria or new

seeds from Erfurt. Perhaps we feel we must give up our plans of a summer collecting trip in Tyrol or elsewhere, and thereby be able to reckon that the amounts thus saved can be expended for the benefit of the nurserymen and gardeners of our own country. But even if we cannot lay out a penny on plants this year, we can still find scope for a good resolution or two in work among the plants we have. Do not let us be put off by the cynics who tell us hell is paved with good intentions; rather let us reason that it could only be broken ones that would be suitable for the purpose, and rely on other authorities on the nature of that place who assure us it is a bottomless pit, and therefore cannot require much pavement; and, better still, feel assured that no good gardener will ever find himself there.

Therefore I suggest that we should all employ our gardening wits and time this year in learning more about the names of plants, and trying to have all those in our gardens as correctly named as possible. The result of this should be twofold, a twin fruit like that of an Asclepiad—first, on the labels in the borders, and, secondly, in our garden catalogues. It is not an easy task to carry through, but a wonderfully interesting and improving one. Not only is there no royal road to the desirable goal at the end of it, but I know of no concise, popular book devoted to the subject of the nomenclature of plants.* This is a pity, as so many people who are fond of flowers and gardens find great difficulty in learning and remembering the right names of their favourites. "Latin names are so difficult, so ugly or so meaningless," they say. "Can't you give it an English name?" A good friend of mine had a delightfully simple plan for curing such a desire in friends to whom he was showing his plants. When they objected to his naming them in Latin, he would give them a nice simple name for each according to its colour. "That is the blue flower," he would say, and his visitor would beam, and answer, "Now, I call that a sensible name." But when she (it was most frequently one of the fairer sex) had beamed and purred contentedly over a pink and a white flower, a second blue flower of quite a different family might appear and be objected to, and provide a text for a tiny lesson on the need for Latin scientific names, as the simple English ones would not go round even in one well-stocked garden.

Some English names are charming, and should never be dropped when they are reserved for one well-known plant, such as Old Man, Pasque-flower, Rosemary, Honesty, Marigold and Christmas Rose. But others, such as Jacob's Ladder and Bachelor's Button, may be applied to quite different plants in neighbouring counties; and when one gets beyond the old familiar garden favourites of our forefathers and begins to make English names for later introductions, and we find ourselves speaking of the variegated-leaved Fortune's Plantain Lily, or Howell's Brodiaea Lily, it seems better to become sufficiently familiar with the scientific names and call them Funkia Fortunei and Brodiaea Howellii, and so be intelligible to equally well-educated gardeners of all other nations. We may decide that it must be left as a matter of taste whether or no Latin names are uglier than English ones, for it is true that

"Different people have different opinions,
Some like apples and some like *inions*."

* Alcock's "Botanical Names for English Readers" is excellent as far as it goes, but only deals with British plants.

That they are meaningless is true in very few cases to those who will spend a little brain and time in learning to appreciate the knowledge and history stored up in their syllables. The study of words is such a fascinating occupation that, once begun for the purpose of a better understanding of our plants, it will almost certainly add an interest to our lives.

There are few more interesting books to one who likes to know something of the words he uses than a good etymological dictionary, and I find the looking out of one word generally leads one on to scanning a page or two for others. In fact, I agree with a certain old lady who was such a persistent borrower of books that one friend hoped to check her zeal by lending her the first volume of the Oxford New English Dictionary. However, she came back after a week, asking for the next volume, and declaring it was a delightful book, although it changed the subject so often. I feel sure an etymological dictionary of plant names, if fairly complete, would also be a delightful book. At present we have to hunt about a good deal, and the most complete I know of is Nicholson's "Dictionary of Gardening." Unfortunately, the best edition, with the two supplements, is out of print, and becoming scarce. Those fortunate enough to possess a complete copy will find their New Year resolutions easy and delightful to carry out, especially if they study well the list of Greek words used as roots in the composition of plant names, which forms the latter portion of the Pronouncing Dictionary in the first supplement. But the less studious may look up their plants in the main body of the work only. For instance, there is the so-called "Stone-plant." Most of us have had its leaves given us by friends returning from travels in warm climates. They bid us place a stone on the leaf and watch the development of young plants from its notched edges. It must surely add to our interest in it to know that this habit has provided its name of Bryophyllum, from *bryo* (to shoot) and *phyllon* (a leaf). Or who would have guessed, unaided by Nicholson, that the Musk Orchis got its name of *Herminium* from *hermin*, the foot of a bed in Greek, on account of the knob-like shape of the root?

But even this delightful authority is sometimes less informative than could be wished; for though he tells us *Bauhinia* is named in honour of the two brothers, John and Caspar Bauhin, he omits the reason given by Linnaeus, that the two lobed leaves of this genus suggested the propriety of its bearing their name; or, again, that the name *Dorstenia* for a genus with inconspicuous flowers, devoid of all beauty, seemed to the great Swede a suitable allusion to the uncouth and antiquated book of Theodore Dorstenius, a sixteenth century botanist. For such interesting information we must go to the "Critica Botanica," a Latin work by Linnaeus, little studied nowadays, but well worth reading to find such a gem as this: "*Hernandia*, an American plant, the most beautiful of all trees in foliage, but furnished with trifling blossoms, bears the name of a botanist highly favoured by fortune, and allowed an ample salary for the purpose of investigating the natural history of the Western World, but whose labours have not answered the expense." *Diascia* is another disappointment in Nicholson, for it is so dull to believe his statement that it is derived from "*diaskeo*, to adorn, on account of its pretty flowers," when I know I have read somewhere it is from *di* (two) and *askos* (a wine skin), a far more exciting and illuminating idea, for it is one of the

very few plants (*Satyrium*, a genus of Orchids from the Cape, being another) whose flowers have two spurs or honey sacs. Still, as I cannot give you the reference to this more picturesque derivation, you must not regard it as "official." Nicholson also gives a translation of even the most obvious specific names, such as *fragens*, fragrant; *grandiflora*, large-flowered; and *Greigii*, Greig's; as well as more difficult ones like *baccifera*, berry-bearing; *linoides*, Flax-like; *rhombeum*, diamond-leaved; *rhodopterygium*, rose-winged; and *senile*, white-haired. So that a careful study of his pages would go far to make Latin names familiar and interesting to us. The new American "Cyclopedia of Gardening," of which two volumes are now ready, also makes a special point of giving the derivation of generic names, and there is a useful list in the first volume of the specific names most in use and their English equivalents.

E. A. BOWLES.

THE CULTIVATION OF EDIBLE PEAS.

THERE is little doubt that Peas presented at their best form one of the most popular vegetables cultivated in this country, and, except for those who are strictly forbidden by doctor's orders, it is rare indeed to come across anyone who has a real dislike (as is too often the case with other vegetables) to well-grown, well-cooked Peas of the best varieties. There are few vegetables which have been improved during the last half century as this, so much so that it is no uncommon thing to hear of Peas being produced in the open in many parts of the country during six months out of the twelve. Where it is possible to accommodate the earliest sowings under glass, this may easily be prolonged, and at whatever time fresh green Peas are sent to the table, they are bound to be appreciated. This is one of the few vegetables that does not answer readily to the bottling process, and personally I always draw a line at these if I know they have been preserved.

Not from one point of view only, but in every detail has improvement been carefully studied by the raisers of new varieties. Early, midseason and late varieties, dwarf, medium and tall, with constitution, flavour and appearance, have all been carefully brought out, and in every case improved upon. If I were asked from which point of view I considered the least improvement had taken place, I should not hesitate to say in relation to the quality of late varieties. I have always regarded *Ne Plus Ultra*, which I can remember from my youth, as the best flavoured late Pea, but it is in every other way superseded. I made a fairly large sowing of it during the past year side by side with other well-known varieties; but, except for its one good point of flavour, it was easily beaten in every other respect.

Preparation of the Ground.—It is all-important, to obtain the best results, that the ground in which it is intended to grow the crops during the coming season be thoroughly and well prepared during the winter months, and as far as practicable choose a site which has not been occupied by Peas of any kind during the previous year. The ground should be deeply trenched and well enriched with good half-decayed farmyard manure, and

at the same time add, if possible, a good dressing of wood-ashes or burnt garden refuse. For the earliest supplies a sheltered sunny position should be selected, but for midseason and late varieties the more open the position and free from trees the better.

For late sowings an old practice, and a capital one, too, is to prepare trenches much in the same way as one does for Celery; and should the soil be of an unkindly nature for the growth of Peas, it will amply repay to add a quantity of fresh compost consisting of charred loam, leaf-soil, and a moderate amount of bone-meal, the latter being the finest stimulant I am acquainted with for the growth of this crop. At all times allow ample room between the rows, as, the more isolated these are, the better will be the returns; indeed, I favour and practise, as far as possible, allowing sufficient distance so that other crops may be cultivated between them, which is often a distinct advantage to both.

Raising the Seedlings.—During the whole of my career as a cultivator I have made it a practice to raise the earliest and at least two successional sowings in boxes under glass, planting them out in their permanent positions immediately the young plants are ready. For many reasons this plan has a distinct advantage over that of sowing them in the open in the cold, uncongenial soil, which it is bound to be at that season. The germination is much quicker and one has them much better under control as regards the seeds and young growth being infested with the many enemies from which the Pea is likely to be attacked, such as birds, rats, mice and slugs, as well as the outside climatic conditions. If carefully planted, the plants will not suffer in consequence; but, on the other hand, will generally do much better and crop earlier than if sown in the open. One of the commonest mistakes made is that of sowing and planting too thickly. It is unreasonable and against common sense to expect the best returns when such is the case, in addition to being a sheer waste of seed. When sowing in the open, the seed should be placed at regular intervals in a double line just as thick again as it is intended for the plants to mature, to allow for mishaps and failures, and thin out to the desired distance when the plants are about three inches in height. Naturally, the taller and stronger growing varieties will require more room than the shorter ones, and it is practically useless to attempt to grow the very large-podded varieties anything like to perfection when overcrowding is indulged in. At the time of sowing, traps should always be set and examined every morning for the destruction of mice, and

black thread should be stretched along the rows 3 inches from the surface to ward off attacks of birds, which have a particular liking for the young succulent growths of the plants. This will be found to be a most effectual method.

Staking.—Though many inventions have been made for supporting the growths, there is nothing which has come under my notice to equal the old-fashioned plan of using brushy Hazel stakes for the purpose, and, when this is properly performed, certainly nothing is more pleasing in appearance.



PEA DEFIANCE MARROWFAT, A NEW SECOND-EARLY VARIETY OF GREAT PROMISE. (*Much reduced.*)

Mulching.—This will be found most beneficial for early, midseason and late varieties alike, and I prefer long stable litter to anything else. This should be applied just before the plants commence to flower.

Watering.—During spells of drought copious supplies of water should be given at the roots, both clear and liquid manure, properly diluted, and during wet weather occasional applications of some approved vegetable manure will have very beneficial results.

Stopping and Thinning.—When extra large pods are required, it is essential to put this into

practice, and it is astonishing the difference it will make. All side growths should be removed, the points of the leading growths pinched out after a reasonable number of pods have formed, and all small and deformed pods should be removed. In the case of the earliest sowings, it will make many days' difference to the first picking if the points of the growths are stopped when a fair crop is assured.

Varieties.—The greatest care should be exercised in making a selection, and in my opinion far too many varieties are grown by most of us. Endeavour to make sure of those which do best

in the locality, and from four to six varieties should be ample for anyone. Personally, I consider there is no room for the old, round-seeded varieties, and I do not attempt to grow them now, as these are infinitely inferior to the wrinkled Marrowfat varieties, many of which are now practically as early. Gradus or an improved strain of this, such as Early Morn, Early Giant and Edwin Beckett, can hardly be beaten. The latter, as well as being very prolific, producing pods of rare quality, is also the hardiest in this locality. Duke of Albany and Defiance are both especially good varieties for succession. Following these, Quite Content is the largest-podded variety grown, and continues in bearing longer than most sorts. It requires liberal culture, and must be allowed ample room to be a success. As regards the finest exhibition Pea, for late sowings I know of none to surpass or even equal that fine old variety Autocrat, or Masterpiece, which is no doubt a selection from it. It seldom fails in any locality, and it possesses a most robust constitution.

Elstree. EDWIN BECKETT.

A GOOD NEW SECOND-EARLY PEA.

THE accompanying illustration represents a spray of a new second-early Pea that I grew last year for the first time, and with considerable success. This is named Defiance Marrowfat, and was sent out by Messrs. E. Webb and Sons. It attains a height of about four feet and is very robust,

the large, dark green pods being produced mostly in pairs. The pods are well filled and the Peas when cooked are of a rich, deep green colour, while the flavour leaves nothing to be desired. The row from which the shoot illustrated was taken was sown on April 13, and the pods were ready for gathering on July 3. Owing to its comparative dwarfness, I consider this an ideal Pea for small gardens, and have no doubt that it would prove a valuable asset on the exhibition table, its large, beautifully shaped and well-filled pods presenting a very attractive appearance.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Melons.—If ripe fruits are required early in May, no time must be lost in sowing the seed. Sow singly in small pots, and plunge the pots in a hot-bed in a warm, moist house. When germinated, keep the young plants quite close to the roof-glass to encourage sturdy growth.

Late Vines.—There is no advantage in keeping late Grapes hanging on the Vines after this date. The Vines must now be pruned and given a period of rest. If the crops have been unsatisfactory,

a long spell of mild weather. Mice, too, must be watched for, as these are known to cause great disappointment among lovers of rock plants by their destructive habits. After a spell of hard frost it may be necessary to press the soil about the roots of small, choice plants.

The Hardy Fruit Garden.

Planting.—On heavy, retentive ground the work of planting may have been considerably delayed through the continued wet weather during November and December. Lose no time in pushing on with this important work whenever the soil is in suitable condition. To facilitate this work it is a good plan to have a quantity of dry soil ready to hand, as this is more readily worked among the roots than soil which is wet. Standard trees must be securely staked when planted, and the rooting area of all newly planted trees should be covered with short litter. When the ground is frozen hard, the opportunity should be taken to wheel manure to the various places where this will be required for the purpose of mulching.

The Kitchen Garden.

Sowing Peas.—The first sowing of Peas may be made as early in the year as possible. The ground should have been prepared for this purpose in the autumn. It is now generally known that Peas require a deeply cultivated soil and plenty of rich, well-rotted manure to have them in the best possible condition. The early sowing should be made on a warm, sheltered border. Here we sow our earliest batch of Peas in boxes, planting them out at the foot of a wall facing south. Pilot is one of the best early kinds.

Broad Beans.—Make a sowing of an early Longpod kind as soon as the ground is in suitable condition.

Tomatoes.—If not already done, a sowing ought to be made at once. A small, free-setting kind should be chosen for early work. Sow thinly in pans, and keep the resultant seedlings growing quite near to the glass in a minimum temperature of 60°.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

Fruit Under Glass.

Vines in the earliest house will now be swelling their buds, and may have a slight increase of temperature; but 58° to 60° at night will be ample. Evaporating pans must be kept constantly filled with water, and a fairly humid atmosphere maintained by giving theinery a slight spraying when the weather is fine. About 11 a.m. is a good time for this to be done, but on dull days a damping of the border and pathway will be sufficient.

Peach Trees in the early Peach-house will be on the point of flowering, and, before the blossoms expand, should be fumigated. This will keep fly in check until the fruit is set. Do not try to hurry progress with this fruit by the use of too much fire-heat at this stage.

The Kitchen Garden.

The Seed Order.—This should soon be put in the hands of the seedsman, so that the various items required this month will be to hand. Delay in sowing may cause disappointment later on.

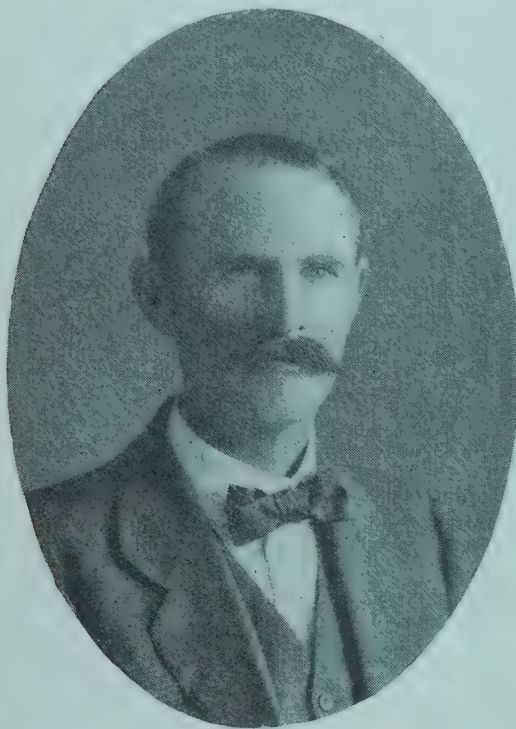
Rhubarb.—The warm end of a Mushroom-house is an ideal place for forcing this, and it will be found to grow much more freely from now onwards than was the case during December. The roots benefit by being lifted and exposed to the frost before being brought indoors.

Onions.—A sowing of this wholesome vegetable should be made without delay if large specimens are required. Ailsa Craig is one of the best varieties for this sowing. The seed must be sown in good strong loam, to which should be added some wood-ashes, leaf-mould and sand. Place glass over the boxes and put in a house with a temperature of 55° to 60°. The ground where these are to be eventually planted should be trenched deeply, mixing in a liberal dressing of farmyard

manure as the work proceeds. If maggot is troublesome, a sprinkling of some soil fumigant must be applied during the preparation of the ground.

The Flower Garden.

Antirrhinums.—If these are to form part of the bedding scheme, the seed may now be sown in boxes and placed in a warm greenhouse. Antirrhinums are divided into three groups—tall, intermediate, and dwarf. The intermediate section is the most serviceable for bedding purposes, but both the tall and the dwarf are useful, and should be included.



MR. E. HARRISS.

it is a sure sign that something is wrong with the roots. The present is the most suitable time to renovate the borders if they are in need of it.

Plants Under Glass.

Carnations.—Plenty of stimulants must be given to plants in flower. Clay's Fertilizer, or some approved Carnation manure, may be given at every alternate watering. Cuttings inserted last month should now be ready for potting into 2½-inch pots. When potted, place them on a shelf near the glass, and keep them rather close for a few days, after which they must be gradually inured to cooler conditions by the judicious use of the ventilators.

Winter-Flowering Pelargoniums.—The cuttings of these may now be inserted. Choose those shoots which have been exposed to the light, as being most suitable to make strong, healthy plants. Fill a number of 3-inch pots with a light, sandy compost, and insert three or four cuttings round the side of each pot. Water them in and place the pots on a shelf in a greenhouse.

The Flower Garden.

Calceolaria amplexicaulis.—This makes a very effective plant when grown as a standard. For this purpose the plants should now be potted into 3-inch pots, and placed in a moderately warm house. Keep the side growths removed till the plants have reached the desired height. Later on they will require a shift into 6-inch pots.

The Rock Garden.—During mild spells much attention must be devoted to the choicest plants, as slugs are capable of doing much damage even during the dead of winter. Plants which have been protected from severe frost must also be examined. In some cases it may be desirable to partially remove the protecting material during



MR. J. JEFFREY.

The Rock Garden.—Several early flowering plants, including bulbs, will be showing signs of growth, and care must be taken against leaves collecting and so encouraging premature growth. Protect with glass those subjects which it has been found succumb to our winter rains, uncovering when the weather is fine so as not to excite growth.

Plants Under Glass.

House Palms.—Palms that are used for house decoration must be changed periodically. A long spell in the dry atmosphere of a dwelling-house is injurious to them. Where changing is impossible, sponge regularly to keep them healthy and clean.

Schizanthuses.—Plants sown in August and September will now be ready for moving into their final pots. Green fly must be kept in check by occasional fumigation.

Cyclamens.—These will now be at their best, and their flowering may be prolonged for some time to come if helped with some weak liquid manure or clear soot-water.

The Hardy Fruit Garden.

Pruning and Tying.—Advantage must be taken during fine weather to get the work well forward in this department. The wall trees, especially Plums, Cherries and Pears, should be pruned and trained first, so that they may have their winter dressing applied before the buds commence to swell.

Planting.—Where fruit trees are to be planted, the ground should receive a good trenching in advance, digging in a large quantity of manure of a lasting nature.

JOHN JEFFREY.
(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castle Milk Gardens, Lockerbie, N.B.

THE SUPPLY OF SEEDS DURING 1915.

OWING to the war there has been some considerable apprehension as to supplies of seeds during 1915, a good many gardeners anticipating a decided shortage. We have therefore been to some trouble to ascertain whether there is any ground for such fears, and herewith we give the communications received from the leading seed firms in various parts of the country. It will be seen that, although a few kinds may be rather scarce, anything like a general shortage is not anticipated. One effect of the war will, we confidently hope, be to induce seedsmen to grow more seeds in this country than in the past, and so render themselves independent of German and Austrian supplies. The firms' letters that follow are arranged in alphabetical order:

This year we are well supplied with all kinds of seeds, but probably the position in the trade generally will be that there will be a sufficient supply of nearly all kinds of vegetable seeds, but a considerable shortage of many kinds of flower seeds which are grown on the Continent. This will apply especially to Stocks and Asters and similar seeds, which cannot well be grown in Great Britain.—**AGRICULTURAL AND HORTICULTURAL ASSOCIATION, LIMITED, Long Acre, London, W.C.**

So far as we can tell, the war is going to make very little difference, if any, to the supply of seeds in the spring. Fortunately, the season in England was exceedingly good for seed-saving, the weather remaining fine well into the autumn. We, like several other people, fearing a scarcity of many things hitherto drawn from Germany, took the precaution to save seeds from our own annuals and perennials wherever we could, and the result has been that we had exceedingly good crops of Asters and many other annuals. In fact, the crop considerably exceeded our anticipations, and the seed has proved to be of very fine germinating power. With the exception of one or two minor varieties, there will be ample supplies of seed to carry us through the season.—**R. H. BATH, LIMITED, Wisbech.**

As far as we are personally concerned, we have ample supplies of Broad Beans, most varieties of Dwarf French Beans and Runner Beans, although Runners are scarce, and, indeed, some of the varieties of Dwarf French too. Other varieties of garden seeds we are well off for, excepting one or two varieties of the late maincrop Peas. In flower seeds we were extremely fortunate, in that we had planted considerable breadths of Asters, on which we have been working and selecting for some years, and have sufficient English-grown seed of the varieties we offer to fill all demands. We also had, and fortunately so, large breadths of *Antirrhinum nanum* varieties, which, by careful single-plant selection, we have managed to get now to breed true to colour and type, and have no doubt these will take the places largely in many gardens of Asters and Stocks, in that they do not suffer from any disease and are so free flowering that quantities of bloom may be cut from them without defacing the bed. A few varieties of Sweet Peas are scarce, especially scarlets and salmon orange varieties such as *Barbara* and *Inspector*.—**ALEX. DICKSON AND SONS, LIMITED, "Haulmark," Belfast.**

It is difficult to say definitely at the present time what seeds will be available for spring, but with regard to vegetable seeds, supplies are now coming to hand from growers, and are of a satisfactory character. We think the stocks available will be quite sufficient to meet all requirements so far as we are at present able to say. With regard to flower seeds, some of the choice varieties of Asters, Stocks, Balsams, Petunias, &c., for the supply of which we have hitherto been largely dependent upon Germany, must this year show a considerable shortage, but the harvest of most of the hardy and half-hardy annuals has been abundant, and will be quite equal to meet the demand.—**DICKSONS, Chester.**

So far as we are concerned, we hope to be able to offer our customers vegetable and flower seeds much as usual. We have made a point of buying home-grown seeds wherever possible, and have almost filled up our requirements.—**DICKSON, BROWN AND TAIT, Manchester.**

We are having no trouble whatever in getting our supplies of flower and vegetable seeds. Of course, it must be kept in mind that we grow a great many things at our seed farm at Mark's Tey, Essex, with the result that we do not require to buy largely. Furthermore, our supplies are coming to hand in good time, and we hope by the time this appears to be in a position to fill all orders.—**DOBIE AND CO., Edinburgh.**

I do not think the general public need fear a shortage of seed for 1915, at least. Crops generally here proved

a fair average, and we have in several instances been able to reduce prices.—**HENRY ECKFORD, Wem.**

NATIVES of these islands need have no fear of any shortage of garden seeds in the spring, that is, any general difficulty in obtaining supplies. No doubt some sorts will be scarce from ordinary natural causes unconnected with the war. For instance, Onion and Carrot seeds were known to be a very poor crop before war was declared. One or two kinds of Peas, such as *Pilot*, failed nearly everywhere. The commoner kinds of Runner Beans, which come from Austria, will not be available unless unpatriotic people import them indirectly; but, excepting such wholesale houses as usually depend largely upon Germany, the trade will get their supplies. Foreign deliveries from other parts of the Continent will be late, and prices will necessarily be somewhat advanced because of extra expenses in overcoming difficulties of transport, and also on account of the financial situation. But England is not, as so many imagine, dependent on Germany for seeds. The Germans have cleverly put this view forward for acceptance, but as a matter of fact British wholesale houses sell large quantities of seeds to Germany and Austria. As wholesale seed-growers my firm would not worry if Germany ceased supplying seeds to-morrow. As seed merchants we should, of course, be extremely pleased. Before closing this note, may I express the hope that your readers will sow even more seeds than usual. It will in these times, when people are practising all kinds of strange so-called "economies," be a boon to hundreds of seedsmen scattered throughout the kingdom who have only the profits of the spring season to look to for their means of livelihood.—**JAMES KELWAY, Langport.**

ON the outbreak of the war no doubt many seedsmen were wondering how it would affect the seed supply, and much anxiety was felt as to whether many of the so-called German flower seeds would be obtainable at all. I am glad to say that the seed trade has not suffered nearly so much as might have been expected. In the case of vegetable seeds there seems no great shortage, with a few exceptions, such as Runner Beans and Carrot, which are both very scarce and dear. Both of these seeds are very largely grown in Germany. I remember, when going round Messrs. Dippe Brothers' place in Quedlinburg many years ago, seeing a huge field of Carrot seed and remarking, "Where on earth does it all go to?" "Well," said my guide, "we send some seven to ten tons every year to one wholesale firm in London." When parcels of that size are not coming into the country, it must make some difference. In the case of flower seeds, the home growers have been able to supply nearly everything usually looked upon as German produce. My own firm catalogues some 400 varieties of flower seeds, and out of this long list I do not think there were six which could not be obtained from home growers. This is very satisfactory, both for the retail seedsmen and the consumer. It is also satisfactory from a national point of view, for if our English growers can supply seeds equal to those imported, a great many thousands of pounds may be kept in the country which has in the past gone abroad. There is generally some good comes out of evil, and good will certainly come to the seed-growers of this country if they will make the necessary effort to meet the extra demand for seeds, orders for which have in the past gone abroad. I think seedsmen may look forward to the coming season hopefully, for seeds, especially vegetable seeds, are a necessity, not a luxury; and in the present time of stress it behoves every garden-holder to cultivate his plot to the utmost, so as to increase the food supply of the nation. Even in the case of flower seeds, they are so very cheap that no doubt many will be sown to take the place of the more expensive bedding plants.—**J. DUNCAN PEARSON, Loddham, Notts.**

WE have not the slightest difficulty in procuring supplies of all we require, and we have already made arrangements for everything. Our seed catalogue is now in the printer's hands, and contains everything that we have hitherto offered, together with some additional novelties. Except in one or two trifling instances, our prices have not been raised in any degree, and the general range will be found to be extremely reasonable. We have not been dependent upon Germany for several years, and many more seeds are now being produced at home than was the case a few years ago. The beautiful summer and perfect harvest weather of the past year have ripened English seeds in such a manner that they can compare favourably with any Continental productions.—**PENNELL AND SONS, Lincoln.**

IT is quite possible that the total amount of seed in this country at the present time is below the average, partly due to the short yield of many English-grown crops, which were affected by the drought, and partly due to the fact that many Continental supplies are cut off. We are very pleased, however, to say that owing to our system of seed production in various parts of the world and our methods of calculating and providing for our requirements, we hold abundance of seed of almost everything for the coming season, and we have every reason to believe that we can meet the ever-increasing demands made upon us.—**SUTTON AND SONS, Reading.**

ALTHOUGH there is a shortage in many crops, we have been able to secure what we think will be sufficient for our seed trade during the coming season; but, nevertheless, there are many varieties that will be short, and we fear when the original stock is sold there will be no

means of replacing them. There seems to be no scarcity of Broad Beans, but Kidney Beans, particularly the dwarf varieties, seem to be rather short, and prices are considerably higher than they were last year. Of culinary Peas there seems to be a fairly good supply of most varieties, although here and there prices are rather higher than last year; yet, on the other hand, a few varieties are a little less in price, but take them all round there will be plenty of Peas for the coming season. There is plenty of such things as Beet and most varieties of Brassicas; but Carrots are very scarce, and consequently prices have had to be a little advanced. Onions are also scarce, and prices much higher than last year; but such things as Lettuce, Radish, Spinach, Turnips, &c., are much about the same as last year. There seem to have been fairly good crops of Potatoes, and these prices will be about the same as last year. Of course, there is not much difference in the supply of flower seeds, apart from Asters and Stocks, many of which are usually imported from Germany; but we believe there are strains grown in this country equally as good, so that we shall get on very well without the supply from Germany.—**ROBERT SYDENHAM, LIMITED, Birmingham.**

THERE need be but little doubt that we shall have enough of practically every kind of flower and vegetable seed that is required. Sweet Pea seed is fairly plentiful, and there will be over and above what is required. Of vegetable seeds we shall have plenty, with the exception of one or two lines. Of culinary Peas there is an abundant crop in England, and of most other vegetable seeds we shall have sufficient. No doubt there will be a shortage of some flowers; but, on the other hand, of all the leading sorts we shall have enough, as there has been an unusually heavy crop of flower seeds throughout the country, and no doubt, owing to the war, most growers harvested as much as possible. I think I am right in saying English growers have placed too much reliance on some seeds grown by foreigners, and there is no doubt that we can grow a quantity of seed in this country quite equal to the Germans. As far as the English grower is concerned, in a good many items I believe this war will be a blessing in disguise, as our growers will now put their shoulder to the wheel and grow as much as possible at home, which must be better for our country, and certainly no worse for the English amateur. No doubt there are several flower seeds that cannot be grown successfully in the British Isles, but these our Colonies can supply. Colonists are taking advantage of this war, and are catering very strongly for our trade, which is desirable.—**W. J. UNWIN, Histon, Cambs.**

OWING to our unique facilities we do not anticipate any difficulty in being able to supply customers with their usual requirements of vegetable and flower seeds, Potatoes, &c., during the coming season, with the exception of French and Runner Beans, which have proved a light crop owing to frost and unsuitable weather for harvesting and a shortage of Continental supplies, thereby causing a slight advance in the prices of these articles. There are good general supplies of home-grown seeds of first-rate quality available at about normal prices, and our stocks are sufficient to meet the usual demands.—**E. WEBB AND SONS, LIMITED, Wordsley, Stourbridge.**

WE do not anticipate any serious shortage of seeds owing to the war. With the exception of one variety of Bean, we have so far met with no inconvenience with any of our contracts. Some flower seeds will possibly be scarce; but, generally speaking, horticulturists can rely upon receiving seeds of equal quality to those of an average year. The war will, no doubt, foster the business of seed cultivation in this country, some of which has hitherto been done in Germany and Austria, and in this respect we venture to say an improvement in the strains may be confidently looked for.—**J. C. WHEELER AND SON, Gloucester.**

NOTES ON VEGETABLES.

IFIND from conversations with readers that there is a desire for information for a selection of varieties. With so many excellent sorts noted in catalogues, it is difficult for the inexperienced to pick out the most deserving, and, what is important to such cultivators, they need some data when to sow or plant, the distance apart, position in the garden, and when such crops may reasonably be expected to be ready for use. My first notes in *THE GARDEN* for 1915 shall be devoted to this subject, commencing with Potatoes, which are the leading vegetable for all types of cultivators.

Potatoes.—First early: May Queen, sprout in boxes, plant on a warm south border in rows 2 feet wide, tubers 15 inches apart, the middle of March. If protected from frost, should be ready to dig the first week in June. Second early: Carisbrooke Castle is a most desirable

Potato. Its cooking qualities are of the highest standard of merit, which not only prevail at digging-time, but are equally so throughout the winter following. As an exhibition variety this Potato should have a bright future. Planted in the open in rows a yard apart early in April, the tubers should be ready at the end of July. Up-to-Date is still the best maincrop Potato, succeeding in any class of soil.

Peas.—The Pilot is an excellent early cropping variety. Sown early in March on a warm, sheltered border, pods should be ready to gather early in June. Duke of Albany is still the best maincrop variety. Sown thinly in rows in an open site early in April, the Peas should be ready for use at the end of July. Quite Content is also desirable. Sown about the middle of April, they will be ready for use the first week in August. As a late Pea The Gladstone is an excellent variety. Sown the end of May or early in June, good pods should be gathered in September. Later sowings will give desirable crops in October.

Broad Beans.—Still the best early sort is Broad Windsor. Sown in February on a warm border, they should be ready for use in June. Leviathan, as its name implies, grows larger in the pod than the former; will be available in July.

Runner Beans are best represented by Prize-winner or Ar. Sow in pots or boxes early in May. Plant out when 6 inches high in single rows. They should be ready for use the second week in August.

French Beans are still best represented by Canadian Wonder. Sow on a warm border the middle of May. Gather in July.

Onions in variety are numerous. Globe Tripoli sown early in August gives useful bulbs in June and July. James' Long Keeping, if sown in the open in drills 14 inches apart, will provide a good winter supply of serviceable bulbs. For exhibition, Ailsa Craig is the best Onion in commerce. Seed sown in boxes under glass in January, carefully grown on and planted in well-prepared soil, will produce handsome bulbs in August.

Parsnips.—One variety only is required. Tender and True is perhaps the most useful, growing easily into roots of good shape and quality. Seed sown in the open in February will give handsome roots in September.

Beet is a useful and easily grown vegetable or salad. For an early supply Globe is good. Sow in April on a warm border; ready end of July. Blood Red as a maincrop variety, sown the first week in May, will produce desirable roots in August.

Celery is an important vegetable, having a long season; in use from August until April. Sow the first pinch of seed under glass in gentle heat in February, and successively to the end of March. Solid White and Aldenham Pink are desirable varieties.

Carrots are in use practically all the year round. Sow Early Forcing and Early Gem in frames in January. For an outside crop sow Early Nantes on a warm border in March, New Intermediate for the main crop in the open early in April, in drills 15 inches apart in deeply dug soil.

Broccoli is an important crop, as so much depends upon the manner in which the plants survive a hard winter. For a supply of heads during November and the following six months commence

with Michaelmas White, following with Autumn Protecting, Christmas White, Leamington and Model for a late supply. From the first week to the middle of April is a good time to sow the seed, at first in a cold frame, afterwards in the open. Any open site with plenty of space between the plants will grow good Broccoli.

Brussels Sprouts are one of the most useful vegetables in the garden. Coming into use in October and lasting until April, it is surprising what a quantity one well-grown plant will produce. Too often the plants are not given time to grow and develop. The first pinch of seed should be sown in the middle of March in a cold frame, the second batch in the open in the first week in April. Exhibition and Dwarf Gem are the two best varieties.

Cabbage.—Ellam's Early is still one of the best early varieties, followed by April, Favourite and Imperial. Sow seed at the end of July and in the middle of August; plant out in batches in rows 2 feet apart, plants 1 foot, with a view to cutting out alternate plants, thus economising space.

Savoys are useful in the autumn, giving a huge crop from a small space. Perfection and Early Ulm are good sorts. Sow in the open in April and treat as Cabbages.

Leeks are now much more in demand than formerly. Prizetaker will supply all that is necessary. Sow seed in January in gentle heat, and pot on as required. Gradually harden off and plant out the same as Celery in trenches in single rows; plants 15 inches apart. In use from September onwards. Sow seed in the open in March; plant in rows 2 feet apart, making holes 15 inches deep.

Turnips are an indispensable crop. Early White and Red Milan are the earliest. Sow seed in a slight hotbed in February, to be followed in the open in March. Snowball succeeds by sowing repeatedly in small patches from April onwards to the end of August. Prizetaker and Orange Jelly are desirable for a winter supply, sowing the seed in August.

Vegetable Marrows bear abundantly with a minimum of trouble. Moore's Cream sown under glass in March will give an early crop if carefully protected when put out, to be followed by Long White and Long Green. Sown in the open, or, better still, in a cold frame in April, these will give a supply until frost.

Cauliflowers are in use from May until succeeded by the Broccoli in October. First Crop sown in January and February in gentle heat, grown on in pots, will give early heads; followed by Magnum Bonum sown in March in a cold frame and again in the open in April; then by Autumn Giant sown in September, kept in pots and put out early, again sowing in the open in March for a late supply. Abundant space should be given to Cauliflowers to admit of the leaves having free and full development. Varieties like Autumn Giant should have the rows at least a yard apart.

In the case of Peas and Runner Beans, the rows should run, if possible, from north to south. In this position the plants obtain a more equal share of sun than if the rows run from east to west. It is a mistake to overcrowd the rows or the plants in the rows. It is far better to arrange the rows 8 feet or 10 feet apart and grow other crops, as Potatoes, in between.

Swanmore

E. MOLYNEUX.

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice. The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

Offices: 20, Tavistock Street, Covent Garden, W.C.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

REPLANTING YUCCA GLORIOSA (Yucca).—The best time for replanting would be either September-October or March-April, and as the former is past, you had better now wait till March, choosing a moist or damp time. You might well risk the planting of a 3-feet-high specimen, the measurement being taken from the ground-level to the tips of the heart leaves. Examples of that size usually transplant quite well. Points of cultural importance include a deeply dug soil, the addition of a little thoroughly decomposed manure, and good drainage. Where the staple soil is heavy, it should be lightened, warmed and drained by adding grit, old ceiling plaster or finely broken sandstone liberally, and with these firm planting should be indulged in. We sympathise with you in the loss of the old plant, though, if only "blown down" and not decayed, it should be possible to raise it again, fixing it in position for the time being by means of cross-stakes fastened to the trunk. Even if decayed, the branches torn off from the main stem, with a "heel" attached, and planted against a wall in sandy soil would in course of time form roots afresh and afford a link with a time-honoured specimen.

THE GREENHOUSE.

PROPAGATION OF NEW CHRYSANTHEMUMS (M. E. G.).—The old plants of varieties that are shy in the production of cuttings should be top-dressed with a thin layer of loam, sand and leaf-soil in equal proportions. The plants must be placed in a temperature of about 60° and the surface soil kept in a moist state, but not saturated. If stem cuttings are required, as in the case of the fixing of sports, the stems to their whole length should be laid in a sandy compost on a stage, and, to enable this to be done, the pot must be placed firmly and in a slanting position. Lightly cover the joints with the soil and lay pieces of brick or stone on the stems between them. Keep the compost moist.

HUMEA ELEGANS AND SKIN IRRITATION (d. J.).—It is now a well-recognised fact that Humea elegans is dangerous to some people, as, if handled, it causes a form of skin irritation which takes some time to allay. In our own case we several times suffered from inflammation of the eyes, which used to take several days of medical treatment to cure. After various suggestions as to the cause, the fact was at last noticed that it always came on after handling the Humea. This was taken as a warning, and never since then have we been troubled. Two years ago, however, when in the gardens at Hampton Court, we stopped to admire a fine bed of this Humea, standing on the leeward side while a brisk wind was blowing. In a few moments the one-time familiar smarting of the eyes set in, so that we at once moved and the worry passed off. It is therefore evident that this Humea is, like Primula obconica, a plant which can be dangerous to some people. Personally, we have not suffered in the hands or arms from touching either of them, but the eyes were a different matter.

THE GARDEN.

No. 2251.—VOL. LXXIX.

JANUARY 9, 1915.

NOTES OF THE WEEK.

Apples Wanted for Wounded Soldiers.—The Hon. G. Eden, 6, Cromwell Place, London, S.W., writes as follows: "If any of your readers have got more Apples than they can use, either eating or cooking, they would be very much appreciated by the wounded soldiers in the Victoria Hospital. Any gifts addressed to the Matron, Victoria Hospital, Tite Street, Chelsea, or to me here will be gratefully acknowledged." We hope those of our readers who can spare fruit will send it to either of the addresses given; our soldiers deserv[e] all the good things we can possibly provide them with.

Votes for the Gardeners' Royal Benevolent Institution.—We shall be glad if any of our readers who have votes to spare for the election of candidates to be held on Thursday, January 21, will kindly send their signed voting papers to us. We are interested in a thoroughly deserving case, and all votes received will be devoted to the candidate.

"The Sweet Pea Annual for 1915."—This, the official organ of the National Sweet Pea Society, is one of the most interesting numbers ever published by the society, and should be read by all who are interested in Sweet Peas. Among those who contribute articles are such well-known experts as the Rev. J. Jacob, Messrs. Thomas Stevenson, William Cuthbertson, J.P., V.M.H., W. Lumley Perrier, T. A. Weston, S. M. Crow, G. F. Drayson, Frank Cuthbertson, T. H. Dipnall, E. R. Janes, J. Harrison Dick, and Hamilton Charnock Mott of New South Wales. In addition there is a full report on the work of the floral committee, an audit of the London show, list of too-much-alike varieties, an up-to-date selection of varieties arranged by the floral committee, and a report on the so-called "streak" cures sent in by vendors for the society to test. The Annual is well bound and illustrated, and should be on the shelf of every Sweet Pea lover. Copies have been sent to members of the society, but non-members can obtain them from the secretary, Mr. H. D. Tigwell, Greenford, Middlesex, post free 2s. each.

Buddleia officinalis as a Small Pot Plant.—In House No. 4 at Kew just now may be seen some interesting plants of this Chinese shrub.

These are growing in 5-inch pots, and each is carrying several racemes of flowers. These are pale lavender in colour, with a conspicuous orange eye, and emit a strong fragrance similar to that of honey-comb. The plants under notice have been grown from cuttings rooted early in the spring, each having its point taken out when growth was active, so as to induce a bushy habit. Although not particularly showy, they provide a welcome and interesting change from the Pelargoniums, Begonias and Carnations that too often monopolise conservatories in private gardens at this season.

The Nomenclature of Sedums.—Considerable confusion appears to exist in gardens over the

A Beautiful Flowering Privet.—*Ligustrum lucidum* is one of the most valuable species of the genus. With us it is a large evergreen shrub or small tree, but Mr. E. H. Wilson, during his travels in China, met with it forming fairly large trees as much as 40 feet to 50 feet or even more in height. As a large, shapely, evergreen bush with rich glossy green leaves, it is the most handsome shrub of the genus for a lawn specimen. Coupled with this, during September it flowers freely, most of the shoots terminating in erect panicles of white flowers 6 inches or more in length. A good-natured shrub, thriving in most soils and situations, it is surprising we do not meet with bushes more frequently in gardens. The year 1794 is given as the date of its first introduction to British gardens from China.

■ A Charming Greenhouse Plant.

Saintpaulia ionantha, illustrated on this page, is one of the most useful and easily grown greenhouse plants that we know. It may be readily raised from seed sown in February or March in pans of well-drained sandy soil, the seedlings being subsequently pricked off and potted up singly when large enough. Good loam, with some decayed leaf-soil and sharp sand, forms a suitable mixture for the plants to grow in. Seedlings raised in early spring often commence to flower in August, and, if given a warm greenhouse temperature, will continue well into the winter. The blossoms are deep violet in colour, though they vary in their intensity on different plants. There is a variety with so-called white flowers, but the deep blue is much the best. Leaves placed on well-



SAINTPAULIA IONANTHA, A CHARMING DWARF GREENHOUSE PLANT WITH DEEP VIOLET FLOWERS.

names of cultivated Sedums, one name being attached to quite different plants, while identical plants are often grown under different names. In order to be able, with the help of experts in the genus, to straighten out this muddle, the Royal Horticultural Society is endeavouring to get together at Wisley a complete collection of Sedums, and will be very grateful for plants or cuttings to grow on for comparison from as many sources as possible. Specimens should bear the name under which they are known, and should be sent by the end of February addressed to The Director, Royal Horticultural Society's Gardens, Wisley, Ripley, Surrey.

drained pots of sandy soil and kept in a close, moist atmosphere will easily root and produce an abundance of young plants; hence there is no difficulty in obtaining a good stock once a single plant is available. It was first introduced to this country from Eastern Tropical Africa in 1893, and deserves to be much more widely known. As will be seen in the illustration, its habit is quite dwarf, and for that reason it makes an excellent subject for placing as an edging to the front of the stage, or for a shelf at the back near the glass, where its violet flowers are seen to the best advantage.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Chrysogonum virginianum Flowering on Christmas Day.—I see I have made a note to the effect that this plant was carrying several flowers on December 25. True, they were somewhat marred by the heavy rains; but how brave and persistent was the plant to keep flowering so late! Another of its commendable features is its willingness to thrive in shade or sun, the chief difference between the two places being that in the sun growth is more restricted and the flowers more freely produced. We grow it in the rockery, but it will do very well for front positions in flower borders.—C. TURNER, *Highgate*.

Poplar Trees as a Commercial Asset.—Hitherto probably one of the least valuable of timbers, there appears to be at present a demand for Poplar in quantity, this being directly due to the effect of the war. It is used largely in the manufacture of matchboxes by a veneering process, one firm alone in this country using nearly a million and a quarter cube feet annually. Practically the whole of this comes from Continental sources, which are closed at present. It is used immediately after being cut, so that if anyone is contemplating the removal of Poplar with a view to replanting with better trees, now is the time, as with the cessation of the war the Russian and other supplies will be coming in again. The Aspen Poplar is the best for the purpose.—G. D.

Iris tingitana in Flower at Christmas.—Those who were at one of the Royal Horticultural Society's meetings at Vincent Square just before Christmas of 1913 may remember some fine flowering plants of the above Iris shown by Messrs. Barr and Sons. I had some bulbs from them in September last, which were at once potted and placed in a cold frame till about six weeks ago, when they were brought inside, into a temperature of 50°, which was gradually increased to 60°. They are now (at Christmas) making a brave show, flowering just at the time they were required, and I see great possibilities in them as a winter cut flower, as they have plenty of substance and are far more lasting than *I. stylosa* (unguicularis), now flowering, and, in addition, they have the fine length of stem required for cutting and market uses. I understand from Mr. Rudolph Barr that the bulbs, after being collected, are grown in the South of France, where they thrive and ripen well, and show no signs of disease. Given a regular and well-maintained supply, it is reasonable to prophesy a future for them.—F. H. C.

A New Poinsettia.—The bestowal of an award of merit on a new Poinsettia, which was done on December 15 last, is the first to which that honour has been given. True, two first-class certificates have been gained, but that was in the days when these honours were more freely given than they are now. The last time was in March, 1877, when a first-class certificate was bestowed upon Poinsettia pulcherrima plenissima, a form on which great hopes were centred, but were never realised. In this the flower bracts are far more numerous than in the ordinary kind. The new-comer which has just received an award of merit is P. pulcherrima rosea, the blossoms of which are of a rose pink colour. As this Poinsettia is apparently of good habit, while the bracts are of large size and freely borne, it will, no doubt, soon become popular.—H. P.

The Journal of the Royal Horticultural Society.—The Fellows of the Royal Horticultural Society are proud to know that its reputation extends beyond the British islands, and are desirous of both giving and receiving information on foreign horticulture. No doubt some copies of the Society's Journal find their way to the United States, but it would be interesting to know whether they are sufficient in number to justify the large amount of purely American matter which for a long time has been regularly incorporated in the issue and is quite valueless to the ordinary home reader. The last half volume—of November, 1914—contains, apart from the record of the society's proceedings, 163 pages of contributed matter. Sixty of these are "Notes and Abstracts," comprising 256 paragraphs, no fewer than 151 of which are absolutely, and for the most part abstrusely, American. Personally, I am greedy of general knowledge, but find neither instruction nor amusement in "The Rough Bark Disease of Yellow Newtown," "Blueberry Culture," "The Fern Caterpillar of Florida Greenhouses," "Lady Beetles of Connecticut," "Manganese on Pine-apple Plants," or "Red Spider on Hops in the Sacramento Valley," and I am weary of the perennial Colorado Potato beetle. If the Journal circulates largely on the American continent and such items are eagerly absorbed—though it would seem rather superfluous to reprint and export what has already been published over there—let us not raise any selfish objection. But if not, is it uncharitable to call this very dull padding?—G. H. ENGLEHEART, *Dinton, Salisbury*.

The Banksian Rose.—Some of your readers have experienced a difficulty in getting this Rose to flower. One hopes, however, that their remarks will not discourage people from growing it, because it is really a good Rose. It is one of the most free flowering of all the pillar Roses; the bunches and sprays of buff yellow blooms covering the wall of a house right up to the eaves is a glorious sight. That it is in itself very free flowering, everyone will tell you who has seen it in the South of France. It is also the most rampant of the summer-flowering Roses, and retains its mildew-proof foliage right through the winter and until the new spring growth appears; and for this reason it is the best of all Roses for covering bare walls, especially the southern front of a house, no matter how high. It will run up 12 feet or 15 feet in one year, and eventually right up to the eaves, round the windows and even over the roof. The Virginian Creeper is not in it, compared with the double yellow Banksia. It never seems to grow old; twenty, thirty years hence will find it as vigorous as when it was first planted. If some cannot make it flower, the cause will probably be found in climate and treatment. As to climate. It is quite hardy, and is never injured by winter frost. But it comes into flower in May, sometimes in April. One month before it flowers, the clusters of buds are formed. This is an anxious time for fruit-growers, and the weather that destroys the Peach blossom will destroy the swelling buds of the Banksia unless they are protected. The overhanging eaves of the house will generally afford the buds sufficient protection. With reference to the next point, treatment. All soils suit it, but a warm, gravelly soil, no matter how hungry and dry, is the best. No; it is not in the soil wherein lies the difficulty, but in the pruning. Unlike the multiflora, the strong rods made the first year will not bloom from the laterals the

second year. The blooms are borne on the laterals of the laterals, and in the third year. In other words, the strong rods take three years before they bear flowers. Therefore, if we treat the Banksia as we do Crimson Rambler or Blush Rambler, for example, we shall be cutting out all the next year's flowering wood. If you have space, prune it but seldom, but if it grows beyond bounds, remove most of the strong, long-jointed rods (leaving a few for future blooming) and keep as much of the short twiggy growth as you can, for that alone the next summer will bear flowers. The writer has grown all four varieties of the Banksia, and values them especially because they flower so early. He has exhibited bunches of the single yellow at the May show of the Royal Horticultural Society in the Temple Gardens.—JOSEPH H. PEMBERTON.

A Hedge of Sorts.—I am planting a hedge. "Nothing to make a fuss about," you will say. Ah! but this is not to be an ordinary Quick-set hedge, neatly clipped, but a hedge long dreamed of; a hedge made (like little girls) of "all that's nice." I have had gardens and hedges many and various in my life, but all inherited ones. But now I am going to make a garden that is "all my werry own"—three acres (no! no cow, thank you; she has materialised as a goat) taken out of a meadow on a south-west slope. In the legal document conveying the same (among many other liabilities), Anne Amateur, spinster, doth covenant to "plant a hedge of sorts." Oh! musty-fusty Lawyer, I thank thee for that phrase! Little did the land-shark who penned it dream what a vision of delight those last little words conjure up. My landlord—prosaic mortal!—has put up a line of Larch posts, and oh! horror! barbed wire to keep his cattle from trespassing on my garden that is to be. So, by way of a start, as this is in the county where "Ghostesses sit on postesses, drinking of toastesses," I have begun by planting a Penzance Sweet Briar by each post—so that we may have "roses to make posies for our noses." Between the Sweet Briars are Japanese Rose bushes (also "of sorts"). Later on I thought of adding Sloes and divers Thorns, Japanese Plums (a very few) and Palm to cheer us when spring's delights are reviving; Almond trees, too, with Bullace and Damsons, followed by Wild Cherries and Crab Apples. Will someone who may read this kindly tell me which kind of Crab has the most beautiful blossom and which the most brilliant fruit? By way of autumn colour I purpose planting some American Maples, and should be grateful for information concerning these also. The first I ever saw were in Ruskin's garden beside Lake Coniston, many a long year ago. Then, too, for winter colour there will be brown Beech leaves and some green and golden Gorse and "heavy-greens," as one of my maids was wont to term them; Holly and Laurel—which last, though belittled by Mr. R*b*n*s*n, was praised by Tennyson, "The twinkling laurel scattered silver lights." Twining among the hedge here and there will be Honeysuckle and Clematis (also "of sorts"), and the wild black and white Bryonies, with their beautiful foliage and berries. The wild Wayfaring Tree, with creamy discs of blossom and ruby clear berries, and Kentish Cobs and the purple-leaved kind will have a place, too. And now, as "in the multitude of counsellors there is wisdom," will anyone send me further suggestions for my "hedge of sorts"? They will be gratefully received by—ANNE AMATEUR.

The Daffodil Season.—It seems to me that we are at last back again to a normal season. In 1913 I had flower-spathes ready to burst at Christmas, but last year, although there were a good number of noses showing, the majority were well underground.—C. LEMESLE ADAMS.

Transplanting Christmas Roses.—I notice on page 618, issue December 26, an editorial query against Mr. Bunyard's advice to plant or transplant these in spring, but I have good reason to agree with the writer. I never succeeded well with Christmas Roses until I happened, some years ago, to see such wealth of them in Sir Ralph Anstruther's garden at Balcaskie in Fife as I had never beheld anywhere else. Mr. Maule, the head-gardener, told me the secret of his success, which was to trench the ground thoroughly, laying some well-decayed manure at the bottom of the trench, cover it with sound loam, and set the plants out in March. I followed his instructions, and have never met with the slightest difficulty or disappointment since. Sir Ralph was so kind as to give me a dozen clumps of *Helleborus niger maximus* at that time, and these, now in their sixth year, have been one mass of blossom since the early days of November.—HERBERT MAXWELL, *Monreith*.

— On page 618 the Editor very wisely and rightly queries a sentence in the note by Mr. G. N. Bunyard concerning these plants, which runs: "When it is necessary to transplant them, the best time for doing the work is in spring." In support of the editorial query, let me say at once that it would be difficult to select a worse time than that recommended, and I have not the least hesitation in saying that transplanting done at that time has been among the chief factors in depleting our gardens of one of the most precious of winter flowers. In "The Hardy Flower Book," page 96, I have distinctly laid it down that "essential cultural details are deep sandy loam—3 feet of it where possible—perfect drainage, light shade and, *greatest essential of all*, September or October transplanting." This sentence was written and italicised advisedly by reason of its importance, in the hope that a life-long study and experience of hardy plants—during which Christmas Roses received particular attention—may have some weight with gardeners and others interested in plants which are generally supposed to be impatient of disturbance. That those in question are not so may be gathered from the fact that one of the best amateur cultivators of the flower I have known consistently for years divided and replanted much of his stock biennially, the handsome flowers—the product of this cultivation—the best answer to those who consider the Christmas Rose "impatient of disturbance." They are all this latter, however, and resent it in proportionate degree if disturbed at a wrong time, and there are few worse seasons than the much too elastic one of "spring." For twenty years or more I have preached the value of early autumn planting for these things, the need for which was revealed to me after much observation, from some pot-grown examples in the main. The reason is not far to seek. Christmas Roses are periodical in their rooting, producing their root fibres in two sets like a Daffodil, the main or basal set issuing from the rhizome in the early

autumn, the second or lateral set of root fibres appearing on the first-named set in spring contemporaneously with the new leafage. This is the natural order of things for plants under normal conditions. By planting in early autumn, the main set of root fibres issued annually are secured intact, and all else follows in good order. Disturbed at other seasons, these main roots—virtually the backbone of the plant—are ruined; since, once mutilated, they *never elongate*—frequently they perish outright—with the result that the plant is thrown upon its own resources for months. The debilitated condition which follows is what the gardener calls "impatient of removal." A better word would be "resentment." The truth of the above has been vividly brought home to me during the past few months. At the end of March last, owing to a change of address, I



LILIUM BROWNII, ONE OF THE MOST BEAUTIFUL OF ALL HARDY LILIES.

was compelled to lift my plants at a moment I realised to be highly detrimental to their welfare. To-day they are flowerless and as miserable-looking as I am miserable concerning them. Moreover, they will be greatly weakened, because they were unable to make their proper growth last spring and summer, and will take time to recover. What can be done for them will be done till next August is out, when I hope to be able to give them "another chance" by dividing and replanting them at the right moment.—E. H. JENKINS.

FORTHCOMING EVENTS.

January 19.—Royal Horticultural Society's Fortnightly Exhibition and Meeting, Vincent Square, Westminster, 1 p.m. to 4.30 p.m.

January 21st.—Annual Election of Candidates for the Gardener's Royal Benevolent Institution, Simpson's Restaurant, Strand, London, W.C., 2.45 p.m.

SOME HARDY LILIES.—II.

(Continued from page 4.)

THE genus *Lilium* has been classified in five groups or sub-genera as follows:

1. *Eulirion*, with trumpet-shaped flowers, borne horizontally, of which the Madonna Lily (*L. candidum*) may be taken as the type.

2. *Archelirion*, with flowers set horizontally and opening widely, as in *L. auratum*.

3. *Isolirion*, with upright vase-shaped flowers, as in the common Orange Lily (*L. croceum*).

4. *Martagon*, in which the perianth is recurved, forming the type of blossom popularly known as Turk's-cap.

5. *Cardiocrinum*, a small group consisting of three species only, distinguished from all other Lilies by their great stature and broad, stalked root leaves.

In a sixth group, *Notholirion*, have been classed certain Lilyworts intermediate in character between *Lilium* and *Fritillaria*; but with these I do not propose to meddle at present.

SUB-GENUS EULIRION.

***Lilium Brownii*.**—There has been much confusion among the Lilies classed as varieties under this homely title. For more than a century Brown's Lily has been grown in Europe; but you shall look for it in vain, except as a pot plant, in ninety-nine gardens out of a hundred. Yet, given considerate treatment, it is one of the crowning glories of the border in July. Plant it deep in gritty loam, without peat and with lime and wood-ashes, if possible on a sharp slope, and it will withstand the worst our wet winters can do to it, increasing steadily by bulb offsets and unfolding its great blossoms with unfailing freedom, borne on stout stems 3 feet high. The flowers are funnelled and gracefully reflexed, the outer segments rich maroon on the outside, the inner ones with a narrow stripe of the same colour down the centre, both being purest ivory white inside, with brown anthers. Where a situation on a steepish bank cannot be found for this Lily, the bulbs may be set on inverted pots to secure rapid drainage, or, as the late Dr. Wallace recommended, the bulbs may be planted on their sides, as Japanese gardeners do, to prevent rain-water lodging between the cupped scales.

***L. Brownii odorum* (syn. *colchesterense*).**—It is not easy to understand the system under which this Lily is classed in the Kew list as a variety of *L. japonicum* (Krameri), so different is it in appearance and constitution from that elusive species. Dr. Wallace, however, was strongly of that view, albeit *L. Brownii odorum* loves lime and *L. japonicum* detests it. *L. Brownii odorum* is reputed to be of easier cultivation than *L. Brownii*, less susceptible of frost and more indifferent to winter wet. It is a desirable plant, with a general resemblance to *L. Brownii*, but not so graceful in growth. The blooms appear a fortnight or three weeks later than *L. Brownii*. The flower tubes are shorter and less deeply stained with purple outside.

***L. candidum*,** the Madonna Lily, has been the source of widespread despair among horticulturists for more than forty years, owing to the

ruin wrought upon it by that deadly fungus *Botrytis cinerea*. If *L. auratum* be the most gorgeous of the genus, the Madonna Lily must be admitted as the loveliest, and no amount of pains should be grudged to purge it of the parasite. In some gardens, often very humble ones, it flourishes and increases as vigorously as a German Iris; in others, the most assiduous treatment has failed, season after season, to preserve it from the pest. Unlike other Lilies, it sends up luxuriant verdure in the autumn, which remains unhurt by frost till the spring, when vigorous flowering stems make their appearance full of promise for midsummer; until suddenly the enemy makes its presence felt, the stem-leaves, beginning from the bottom, wilt and shrivel, growth is arrested and instead of five or six feet of sturdy stem, clothed with shining, light green leaves and carrying twenty to thirty trumpets of fragrant alabaster, nothing is left but a blighted stalk, disfigured by shrivelled foliage and bearing three or four blemished blossoms. Whereas *Botrytis* is the most insidious and inveterate plague with which the cultivator of Lilies has to contend, and whereas nearly every species of Lily is more or less subject to its attack, this may be a fitting place to describe the most hopeful precautions to be taken against it. The fungus first appears on the leaf as a yellowish brown, oblong blotch, as if some mordant liquid had been dropped on it, within which blotch a lens reveals a number of black dots of fructification. Mr. Grove having waged successful war against the enemy, I may quote his prescription: "At the first sign of the malady the plants attacked should be sprayed with a solution of 10z. of sulphide of potassium to 2½ gallons of water, the dose being repeated daily, and all uninfected Lilies near by should be sprayed with Bordeaux Mixture or Evans' Aseptic Solution. If the disease gains ground notwithstanding the spraying, the proper course to pursue—if an heroic one—is to cut down the affected Lilies and burn every scrap." In short, "let us spray"—and if that fails, "let us pray"—that in time the Madonna Lily will recover such strength of constitution as will enable it to resist *Botrytis*; just as the Hollyhock, which a few years ago seemed to be on the verge of extinction under the ravages of *Puccinia*, once more adorns our borders with its many-coloured spires.

Every living thing, animal or vegetable, is the host of parasitic organisms. So long as the host remains in perfect vigour, it can usually entertain such guests without appreciable injury; but so soon as its vitality flags under some adverse condition, such as excessive wet, untimely frost or improper cultivation, the parasite gets the upper hand, multiplies inordinately and vanquishes the host. Therefore, while resorting to spray and other palliatives to keep *Botrytis* at bay, our chief concern should be to provide the Lilies with the conditions of

soil and situation most suitable to their wants. The wants of the Madonna Lily are few and simple. A native of the Mediterranean region, growing wild on the rugged tract of limestone that divides the Adriatic from the Ægean Sea, it is far more likely to suffer in our gardens from overfeeding than from famine. In fact, the finest display is often to be seen in some farmhouse or cottage plot, where the bulbs have grown crowded and uncared for, it may be for generations of men, while dismal failure dogs all manner of coddling and coaxing in a fully manned and richly manured garden. The best advice that can be followed is, first, to secure perfect drainage; next, to plant the bulbs shallow, not more than

in September. Lastly, let him who is lucky enough to have thriving clumps of this peerless Lily leave them alone. There is a variety of the Madonna Lily called *robustum*, which, as its name implies, is sturdier than the type, and may prove less liable to disease. I planted fifty bulbs of this variety in September, 1913, and these have flowered splendidly, without a trace of disease. Another variety named *speciosum*, with black stems, is well reported of, but I cannot speak from experience thereof. A third variety with narrower sepals than the type is much inferior, and therefore to be avoided. As for the double-flowered Madonna Lily offered in nurserymen's lists, it is an ugly abomination.

L. japonicum.—This is usually known in gardens as *L. Krameri*. It is a lovely thing, but my own experience of purchased bulbs is most discouraging. A few large blossoms of delicate blush pink have been produced in the first season, after which the bulbs have disappeared. I admit, however, that I gave up attempting to grow it several years ago, before I had learnt from experts the right way of treating imported bulbs. It is possible that if the bulbs were placed in large pots on arrival, deprived of flower-buds in the first season, and in the second season planted not less than 8 inches deep on sandy soil without lime, on a bank steep enough to ensure rapid drainage, this Lily might prove more permanent than it has done hitherto. The only other chance of keeping it is to raise it from seed, which it is said to ripen freely. Bulbs of this and other species obtained in this manner are not exposed to the debilitating effects of rough handling, packing and other adverse incidents of the import trade, and *Kramer's Lily* is so beautiful as to be worth waiting for during its growth from seed.

L. longiflorum.—This is imported in millions for pot culture, and is usually sold as the Bermuda Lily. Every florist's shop teems with this beautiful flower. It is usually reckoned not to be hardy in this country, and that is true enough of the variety cultivated in Bermuda, whence British dealers have hitherto drawn their chief supply. But the wild type is probably a native of China, and some of its varieties have proved patient of the vicissitudes of our insular climate, at

least in the South and West. The more robust of these varieties comes from the Liu-Khiu Islands, and is distinguished as *L. longiflorum formosanum*. Planted deep in very gravelly soil, enriched with leaf-mould, sand and wood-ashes, on a steeply sloping bank, this Lily comes bravely through the winter with me, and flowers freely on stems between 2 feet and 3 feet high. A thick covering of leaf-mould is advisable to protect the bulbs from frost, of which they have no experience in Liu-Khiu. If it grew but a foot or two higher it would be a formidable rival to the Madonna Lily.

HERBERT MAXWELL.

(To be continued.)



THE MADONNA LILY (*LILIUM CANDIDUM*), WITH A BACKGROUND OF DEEP GREEN SHRUBS.

4 inches or 5 inches from the surface, but with care to break up the soil to a greater depth below them. The soil should be the reverse of unctuous, with a liberal admixture of ground limestone, chalk or old mortar rubbish. Overhead shade is objectionable, but the proximity of trees is of advantage, for this Lily thrives well among tree roots, relishing the dryness which these ensure. In one respect the Madonna Lily differs from nearly all other Lilies, in that the bulb never rests, but starts into fresh growth immediately after flowering. Perhaps that is the effect of our wet autumns; but, anyhow, it imposes on us the necessity to get all planting or transplanting accomplished early

SEASONABLE NOTES ON CHRYSANTHEMUMS.

Propagation.—Early in the New Year, cultivators of these plants will be anxious to put in large batches of cuttings. Neither in greenhouses nor in frames is there much vacant space during the winter months, and so it is advisable to economise in this respect as much as possible, and only insert the naturally late and November flowering varieties. Cuttings of the early sorts should be dealt with immediately the first batches are rooted sufficiently to take out of the propagating-frames. The wise cultivator will have procured and stored in a cool place a nice quantity of cutting compost, some clean, dry pots and crocks, also new labels.

The Best Cuttings to Select.—A weakly cutting may be strengthened, but much valuable time is lost and it requires more attention than a strong one. Rather than be content with weakly cuttings, cultivators should purchase good ones from firms who advertise them for sale, as they treat the old roots specially for the production of sturdy suckers. Of course, more cuttings must be inserted than are actually required to make up for losses. The best cutting is one growing as a sucker through the soil—one that is 3 inches or a little more in length when severed at the soil level; it must be of medium thickness, not soft and very sappy. The sappy-stemmed cuttings damp off sooner than those that are firmer and harder. If cut much below the soil level, the cutting will not form roots quickly, and the resultant growth will not be free. The best policy in such cases is to wait until the suckers have grown long enough to sever above the soil, as time will not be lost, but gained, owing to roots forming quickly and progress afterwards being more satisfactory.

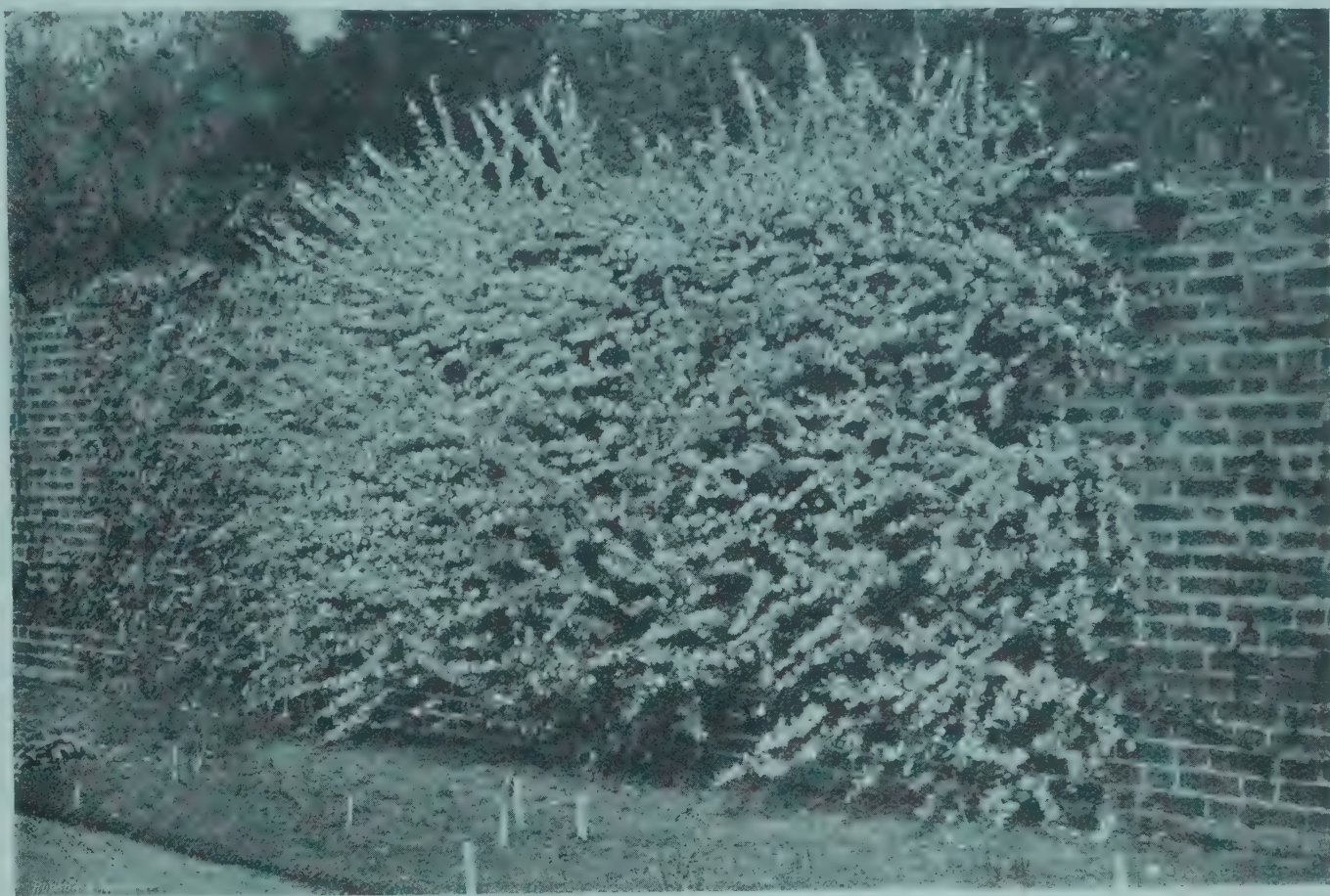
Making and Inserting Cuttings.—Sever the stem one-eighth of an inch below a joint and remove the leaf from that joint. When once roots are formed, it is very important that they are not unnecessarily disturbed afterwards, especially if the plants are to be grown for the production of large blooms or as big specimens. With such work in view, make use of small but deep pots, and strike one cutting in each. Very fibrous loam, flaky leaf-soil and coarse sand in about equal proportions form a nice compost. Place one crock in each pot, then some leaf-soil on it, before filling up with the general compost. Let the latter be of medium moisture when used, and make the cuttings firm in it. A small frame placed on a greenhouse stage forms an ideal propagator; boxes covered with squares of glass will answer the purpose well, but damping of cuttings is always more general when the glass is fixed on a flat top. Form a miniature roof to

the box and place the glass so that it has an angle of 45° or sharper still, and loss from internal moisture will be less. Remove the glass every forenoon for about one hour, and wipe it dry both morning and evening. Having once watered in the cuttings, be careful not to keep the soil too moist afterwards.

In an early issue, with the Editor's permission, a select list of varieties for various purposes will appear. The following are new and very fine ones that should be obtained at once by cultivators who wish to score successes during the present year: Yellow Mrs. Gilbert Drabble, a grand variety of fine form, propagate now; Queen Mary (white), Mrs. Gilbert Drabble (white)—these are late flowering and require a long season of growth; Lord Kitchener (ruby crimson), General Joffre (another grand crimson), General French (clear terra-cotta), Master Mortimer (delicate rose), Daily Mail (yellow, narrow florets), William Vert

ON WALL GARDENING.

SO many conflicting elements of charm and—let it be admitted—of disillusionment no less are to be found in wall gardening that it is no great wonder if a fierce battle of opinion should be waged with regard to its merits or demerits. Yet we are fain to believe that it was a happy inspiration which suggested how some old walls might be improved by wisely encouraging vegetation upon them, and how others might even be built with a view to planting. We pause in admiration, perhaps, before some dilapidated wall fringed with the dainty greenery of Maiden-hair Spleenwort, or catch sight of a stray garden plant which has found a home for itself in a crevice of mouldering brickwork, whence it looks down, exultant in its fulness of blossom, upon its kindred



PRUNUS TRILOBA FLORE PLENO, A BEAUTIFUL HARDY SHRUB WITH PINK AND WHITE FLOWERS.

(chestnut crimson), Mrs. James Gibson (mauve pink), Mrs. C. Farrar (bronzy buff) Mme. T. Morel (apricot), and Maud Lousada (rosy mauve) AVON.

A BEAUTIFUL HARDY FLOWERING SHRUB.

THE accompanying illustration represents a fine plant of *Prunus triloba flore pleno*, one of the most beautiful of all hardy flowering shrubs. Fortunately, it will thrive in almost any good garden soil, and does equally as well grown as a bush in the open as when trained to a wall. It may be planted at any time during the winter, and once it has filled its allotted space, should be pruned hard each spring immediately the flowers have faded. These are borne on the young wood, hence by removing this promptly at the time stated vigorous new shoots are produced for flowering the following year.

H. of the border, whose very luxuries of easy living, maybe, have made them rank of leaf and sparing of flower. So it is that we find Nature herself pointing the way, and we shall not go very far wrong if we patiently follow her footsteps. Generally speaking, the temptation to an enthusiast is to overdo the planting. A wall, even one that is prepared, ought not to be regarded as a sort of perpendicular flower-bed, as some people seem inclined to think, for it loses much of its characteristic beauty as soon as it becomes too thickly overgrown. Age-worn and weathered stone and brickwork have a charm and colouring all their own which it would be folly to hide, but which, nevertheless, may be greatly enhanced by the skilful addition here and there of leafage and flower. Yet it is not always easy to strike the happy mean. It fell to my lot once to see a design prepared in all good faith for the purpose of showing an easy way out of many difficulties besetting

wall gardening. The sketch was intended to be a model pattern for a terrace garden, and represented a somewhat pretentious erection backed by a 10-foot wall, pigeon-holed in rows by the omission of a brick at regular intervals, the pockets being arranged quincunx fashion. The plan certainly had the merit of making the most of the wall surface. But the charm of a planted wall is not to be wooed or won by any such simple rule of thumb. The growth upon it must be spontaneous, or, at any rate, so cunningly regulated as to appear to be so.

Boundary walls for the most part are less adaptable for planting than retaining walls, which

In the same garden a branch of Winter Jasmine has rooted of its own accord into the coping of another boundary wall, where its welcome stars serve to lighten the dreariness of flowerless January. The grey-green of a plant of homely Sage—a stray seedling lodged by chance—has been known to produce a delightful bit of colour contrast against the mellowed red of an old brick wall. How shrubs of naturally strong growth find sufficient nutriment in the seemingly inhospitable quarters so offered, it is difficult to say, but so it is; and not only do they sprout, but grow and live for years, forming pictures of their own sweet will which are hard to copy and harder still to beat.

that capacity it may be seen, in fullest beauty, clinging to the sun-dyed brick of crumbling Roman ruins; but it is not an uncommon garden shrub in the West of England. Once established on a sunny wall, it will always be treasured, so slender is it in its growth, so little aggressive, yet so laden in early summer with clusters of soft yellow Pea flowers, just touched and pencilled with russet red. It may be of some practical use, by way of reminder, to name a few of the plants, other than shrubs, which have done well in this locality. A colony of Catmint (*Nepeta Mussinii*), with hoary leaves and a wealth of grey-blue flowers in its season, is rightly placed just leaning over the



A RETAINING WALL VEILED WITH FLOWERING PLANTS.

naturally foster plant growth. One of the prettiest of small plants for a boundary wall is *Vittadenia trilobata*, whose cheerful little Daisy flowers, changing from white to deep pink, smile at us faithfully from spring to late autumn. It has a natural affinity even for a mortared wall, where it will find a foothold somehow, and quickly makes little colonies of itself without any fuss. In some gardens *Erinus alpinus* takes freely to the upright position and needs scarcely any rooting space; but here it shows a decided preference for flat surfaces, and sows itself delightfully into the joints of rough stone steps. It is never a surprise to see Snapdragon or Wallflower or Ivy-leaved Toadflax flourishing on a boundary wall; but there are other plants, apparently quite unsuited by habit for such situations, which make themselves equally happy there when accident gives them the chance, and sometimes we get an unexpectedly good effect. Take shrubs, for instance. No one would dream of planting *Ribes* on the top of a kitchen garden wall; yet five minutes' walk would bring me to a spot where little bushes of the red-flowered Currant—of low stature indeed, but rosy with flowers every spring—brighten the summit of such a wall.

Where dry walling holds back a considerable body of soil the case is different, and shrubs of a certain type become valuable auxiliaries. Some of the smaller-growing *Cistus*—notably *C. florentinus* and *C. lusitanicus*, a miniature Gum *Cistus* little grown, which has crimson-spotted, cupped petals—are especially suitable. Rooted cuttings of these were inserted in the joints at the top edge of a retaining wall in my own garden, and have thriven amazingly. Their fault, if anything, has been a superabundant vigour, which has made it necessary bodily to cut down one here and there, both stubs and roots being too firmly embedded to allow of entire removal. The stumps, notwithstanding, have broken afresh, so that these cut-down bushes will eventually flourish again instead of others which, later on, must receive the same drastic attention. Some of the New Zealand *Veronicas* of naturally dwarf habit, favoured by our mild Sussex coast climate, have also done well in a like position. Being evergreen, both *Cistus* and *Veronica* are peculiarly suitable for wall planting in the Southern Counties. One other native of South Europe—*Coronilla Emerus*, well known to our forefathers as Scorpion Senna—occurs to me as an ideal wall shrub. In

the corner of a retaining wall, and is very charming; but it quickly dies out and has to be renewed. *Lithospermum prostratum* comes earlier in the year—one of the earliest, in fact, to start flowering—and is a veritable gem with its boss of gentian blue against our greyish yellow sandstone. The confined root space keeps it from straggling. A form of *Phlox Stellaria* known, I believe, as *P. lilacina* is one of the most delightful of our spring plants, and is apparently not very familiar even to good gardeners, who always notice its profusion of flower as it hangs its trailing stems over the stones. *Genista sagittalis*, which has curiously flattened and winged stalks, with scarcely any leaves, is at all times distinct, and very decorative about midsummer when full of its golden tufts of flowers. Some of the Plumy Saxifrages, again, e.g., *Saxifraga pyramidalis* and *S. macnabiana*, have done well here, while for less good positions a handsome hybrid of the London Pride type, known as *S. Colvillei*, is invaluable, and takes care of itself. For rougher positions still—especially low and damp ha-ha walls—Ferns of the commoner sorts are picturesque; but beware lest

they take possession of any wall where choicer things are invited to grow. This is not a Fern locality, yet Male Fern, Buckler Fern and even Brake have become a nuisance, so difficult are they to remove when they are in the wrong place.

One comes to the conclusion in the long run that in wall gardening we must be content, in a measure, to let things have their own way. In most parts of a garden this is bad practice—the haphazard system seldom works out well. It is always better, no doubt, to have a scheme in view even for a wall, and to control the growth upon it as far as possible; but it is wise to be prepared for unruly subjects which will not by any means be governed. We may try again and again to produce an effect which seems delectable to our mind's eye, but some accident of aspect—of shade or exposure, of dryness or damp—frustrates the most nicely calculated intention; while an alien intruder, a Mullein or wandering Foxglove, perhaps, finds its way in and ends by conquering our affections by dint of sheer audacity. It may even be that it is this very quality of waywardness which adds such intense interest and enjoyment to any attempt that may be made at wall gardening. K. L. DAVIDSON, in *Country Life*.

SOME GOOD DWARF POLYANTHA ROSES.

DURING the last few years a good deal of attention has been given to the Dwarf Polyantha Roses, a race that is particularly useful for filling large beds, owing to the fact that the plants make neat, compact bushes, many of which are almost evergreen, and their freedom of flowering. Late in the autumn, when visiting some large Rose nurseries in the Midlands, I was reminded of the value of these Roses for autumn effect, row after row of goodly length being almost hidden with the large clusters of small, rosette-like flowers. Four varieties were particularly noticeable, these being Jessie, Phyllis, Orleans and Katherine Zeimet. The first named is the most beautiful of all, the blossoms being deep glowing crimson-scarlet in colour, yet not sufficiently glaring to be objectionable. Phyllis has dainty rose pink flowers, a colour that Orleans also shares, but in the latter variety the blossoms are rather larger and the bushes a little taller. Although Orleans is very beautiful in autumn, the blossoms bleach rather badly during the hot days of summer; hence some care would need to be exercised in using it in very sunny districts, unless an autumn display only is required. Katherine Zeimet has pure white flowers, which are deliciously sweet-scented, a character that the others named unfortunately do not possess in any great degree. Having once seen the beautiful colour effects that these little Roses will produce, it is difficult to understand why they are not more freely used in large lawn beds in place of the heterogeneous mixtures of bedding plants that one too often finds in many of our large gardens. A circular bed, some ten yards or twelve yards in diameter, might be thickly planted with Jessie, leaving a yard or so in width at the edge for Katherine Zeimet. If ordinarily well grown, the bushes would commence to flower early in July and continue right through the late summer and autumn until frosts put a check on their career. Last year in an Essex garden I gathered good sprays from Jessie at the end of November, long after the ordinary bedding plants had been destroyed by frost. Phyllis or Orleans could be planted in association with Lavender, either as a margin to stone pathways, at the top of retaining walls, or in large beds, in the proportion of two Roses to one of Lavender, the latter to be the common steel blue flowered variety. These colours create a delightful harmony, which is scarcely broken even when the Lavender flowers are past, the glaucous grey tint of the foliage having an almost similar effect. Although the initial cost of planting beds with these Roses, or Roses and Lavender, will be rather more than that of Geraniums and other soft-wooded plants, this will be more than compensated by the number of years that the Roses last. Apart from aphides, the Dwarf Polyantha Rose is not usually seriously affected by other ills that the Rose is heir to. H.

CRINUMS AT MICHAELMAS.

As the year approaches its close, the fewer flowering things that remain, or that may still be looked for, are all the more precious. It is well to remember how late in the year Crinums are in beauty. The photograph was taken on Michaelmas Day, and the plants had yet another fortnight of beauty, so carrying on their duration of bountiful bloom to near the middle of October. Where there exists, or can easily be made, a sunny bank of very deep, light soil, these lovely things may be had in perfection. If there is a wall or some such protection at the back, it is all the better. Much the same conditions suit the great Tree Poppy, Romneya Coulteri, and a good length of bank with the two kinds of plant intergrouped would have a fine effect. G. JEKYLL.

THE BEST APPLES AND PEARS FOR MIDLAND COUNTIES.

I HAVE read with interest various letters that have appeared in THE GARDEN relative to the best kinds of Apples and Pears. Perhaps a few notes as to one's experience in an East Midland county

and Son, and as an October Apple I know of nothing to touch it. All my friends who have once tasted this Apple desire to renew their acquaintance; but, strangely, I have never seen the tree elsewhere than in my own garden. The Apple must not be confused with the various Golden Pippins, and if any of your readers wish to plant this kind they should make sure they get it. The fruit is best when taken fresh from the tree, and will keep good a full month or longer.

Another little-known Apple and a new one is St. Everard. I have had the tree for two or three years, but it gave me a few Apples last year for the first time. They were ripe at the end of August, handsome and excellent.

I have not been fortunate in finding many other dessert Apples that I care for, but Cox's Orange Pippin makes one very fastidious. I thought Allington Pippins were going to be a real find, but the fruit was cold and sour and not worth growing.

As to Pears, different soils affect trees so much that many kinds valuable in other districts are useless here. My selection, after a long experience, is: Jargonelle, Williams' Bon Chrétien, Beurré Hardy, Emile d'Heyst, Beurré Superfin, Winter Nelis, Dana's Hovey and, above all, Doyenné du Comice. I have recommended this latter Pear so much that it is now abundantly grown



CRINUMS FLOWERING ON MICHAELMAS DAY IN MISS JEKYLL'S GARDEN AT MUNSTEAD WOOD.

would be of interest to readers. I have for the last thirty years tried a great many kinds of Apples and Pears, and have found, very often to my sorrow, that many much-vaunted kinds are of no value in this district. As regards Apples, I have come across few new varieties that I think worth keeping, and I find myself thrown more and more upon the famous Cox's Orange Pippin. To get this fruit to perfection, the tree needs growing in the full eye of the sun and the fruit carefully thinned. The finest fruits I have grown have been on espaliers, and last year two Apples weighed 14½ oz. An Apple that I think one of the very best is Pine Golden Pippin. This came from Messrs. Rivers

all over the district, and the best quality fruits I have ever eaten were some given me by a friend, grown on a wall in stiff clay. Many years ago I planted a tree of Duchesse d'Angoulême and a "Williams." The Pears had no flavour at all, and I was about to cut the trees down when I read somewhere that the fruit of Pear trees improved as the trees grew older. This I found to be true. Winter Nelis is a splendid Pear, but I get a very scanty crop. I have two trees on a south wall, and an espalier, which produce an abundance of bloom, but scarcely any sets. I should be grateful if anyone can give me a hint as to the remedy. HUNTS.

GARDENING FOR BEGINNERS.

HOW TO FORCE RHUBARB.

FORCED Rhubarb is much appreciated during the early weeks of the New Year. At that time the fruit of our orchards is becoming scarce, and those who are responsible for maintaining the supplies of the kitchen naturally look round to see how the strain upon Apples, Pears and such-like fruits may be relieved. Fortunately, the forcing of Rhubarb is not by any means difficult to carry into effect. Methods of forcing are varied and interesting, and many different modes are practised with equal success. Some growers make a point of preparing a small border in a southern aspect, if possible under the protection of a wall, hedge or close fence. More often, however, roots with promising crowns are lifted and planted under glass, in frames, or in a Mushroom-house, where it is an extremely simple thing to ensure supplies of good quality.

Beginners may be in some doubt as to when the roots should be lifted for forcing purposes. They may be lifted at any time after the leaves die away in the autumn. Those who are adept in raising Rhubarb under cover as we have suggested prefer to leave the roots exposed in the open to a slight frost or two before placing them in their forcing quarters, as they invariably break into growth better when once they are placed in heat. Prospects of a satisfactory forcing of this crop are improved when the lifted roots are very strong and not more than two or three years old. That readers may understand what a vigorous root is, a typical specimen is portrayed in Fig. 1. In ordinary circumstances we should disturb the soil round about the roots as little as possible; but, for the purpose of photographing, the soil has been removed.

I have already said there are numerous places in which the roots or crowns can be planted for forcing, and there is no more useful place than under the stage of a warm greenhouse where the temperature can be maintained at from 55° to 60°. It is almost necessary, however, that the quarters should be made dark, as growth is then more rapid. A warm cellar can be utilised for the same purpose with advantage, especially for supplies that are wanted in January and later. Those who possess a Mushroom-house have an immense advantage over other growers. There is no more suitable place than this. The conditions that usually prevail there are all that could be desired, and the crop seldom fails when properly looked after. The floor of the Mushroom-house should be covered with about three inches of good soil, and the roots then adjusted in position, working some light soil between and around them to complete the planting. It is important to remember that when forcing Rhubarb, the roots must be maintained in a moistened condition. Especially is this necessary when the conditions are rather warmer than usual; frequent sprinklings with tepid water will assist very materially to promote the well-being of the crop.

To follow the earliest supplies under glass and from other quarters, beds outdoors should be utilised to their fullest extent. Beds and borders made up under a wall or a close fence facing south, as already mentioned, are excellent situations for subsequent supplies, and from such quarters a second crop should be obtained. This is perhaps the simplest way of all of forcing Rhubarb, as splendid crops may be obtained with the minimum of trouble. When Rhubarb is forced in the open, the grower may utilise the services of coverings of various descriptions—in fact, anything that will cover the roots and that has sufficient head room.

For raising crops of some of the more vigorous and taller-growing Rhubarbs, such as Hobday's Giant, I prefer to use empty Apple barrels. These should have the ends knocked out, and the better end preserved intact for covering purposes. In Fig. 2 an Apple barrel, as used for forcing these taller-growing Rhubarbs outdoors, is shown. Here it will be observed the barrel is placed in position over the Rhubarb root, with the lid slightly tilted to show it is not fixed, and can be adjusted after inspecting the crop. The barrel is partially embedded in warm stable litter, which will encourage the roots to start, and subsequently, if needs be, the whole barrel can be covered with the same littery material. Leaves and stable litter used in conjunction are better, as the heat does not then get too fierce.



FIG. 1.—A STRONG RHUBARB ROOT THAT IS SUITABLE FOR FORCING.

The coverings should be tested occasionally, so that the latter condition may be avoided. D. B. C.

THE WINTER TREATMENT OF BORDER CHRYSANTHEMUMS.

ALTHOUGH in most districts these plants are hardy enough to withstand ordinary winters without any protection whatever, there is always a possibility that slugs and wet, with severe frost, may cause so much damage as to render the plants practically useless. For that reason I always find it advisable to lift the old stools and place them in a cold frame, or, failing that, a warm and dry corner of the garden. If not already done, no time should be lost in attending to this work, as already the sucker-like growths are pushing above the soil. To prevent the depredations of slugs, and at the same time ensure perfect drainage, I make up a bed, 3 inches thick, of stale coal ashes and on these place the lifted stools closely together. Then a mixture of ashes, soot and fine sandy soil is shaken between them so as to make the whole moderately firm. If in a cold frame it is neither necessary nor desirable to have the light on, except in extra severe or wet weather, and even then ample ventilation must be afforded, as it is essential that the new growths be as sturdy as possible.

Old stools treated in this way will give a bountiful supply of cuttings for rooting in pots or boxes during February where that method is favoured. A system that I have adopted with border Chrysanthemums for some years, and one that answers as well as it is simple, is to lift the old stools from their winter quarters about the second or third week in March, and pull off the young growths with a sharp downward jerk. Nearly every one will come away with several young roots attached, and each is planted where the subsequent plant is intended to flower. In a few days they recover from the check, make new roots and quickly establish themselves. Then, about the end of April, when growth is fully active, the top is pinched out of each, the result being a nice bushy plant by the autumn.

A. B. Essex.



FIG. 2.—AN OLD APPLE BARREL SURROUNDED BY LONG MANURE IS USEFUL FOR FORCING RHUBARB OUTDOORS.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Strawberries.—A batch of plants may now be placed indoors. Choose those with large single crowns, carefully remove a little of the surface soil with a pointed stick, and top-dress with a mixture of loam, manure from an old Mushroom-bed and wood-ashes. See that the drainage is clear before bringing them indoors. A shelf in a vinery or Peach-house which has just been closed will suit the plants for the first few weeks. Keep the foliage clean by vigorous syringing whenever the weather is fine, and never allow the plants to become dry at the roots.

Young Vines.—If these are to be planted and are to be procured from the nurseryman, no time must be lost in doing so, as the rods will require to be cut back to five or six buds. This should be done before the end of the present month, or the Vines are likely to bleed badly. Young Vines may be propagated now from eyes inserted in small pots or turves. Place them on a hot-bed in a warm, moist house and water carefully till growth is active.

Plants Under Glass.

Begonia Gloire de Lorraine.—As the plants pass out of flower reduce them to about half, place them in a moderately warm house for two or three weeks, and give water sparingly to induce the plants to rest. They may then be cut right down and placed in a warmer house and frequently syringed, where they will quickly throw up strong cuttings for propagating.

Roses in Pots.—To keep up a good supply of blooms, a batch of plants should be placed near to the glass in a light structure at fortnightly intervals. A temperature of 50° will be quite high enough till the buds begin to show. Even then too much artificial heat must not be given.

Lily of the Valley.—To keep up a supply of these flowers, retarded crowns must be used till the end of the present month. A batch must be placed into heat every fortnight or three weeks, according to the demand. Ordinary crowns may be used after this month, but these are much more difficult to manage, and the least cultural error may cause disappointment. Clumps dug up from the garden are easily forced on a hot-bed in a heated frame. Keep the glass well covered till the flower-spikes are well above the ground.

The Flower Garden.

Sweet Peas.—No time must now be lost in sowing a batch of seeds if not already done. Sow two or three seeds in small pots and place them in a cool pit. When the plants are through the soil, remove them to a cold frame and encourage sturdy growth by giving plenty of air whenever outside conditions will permit.

Early Flowering Chrysanthemums.—There is now a wide range of beautiful varieties suitable for growing in the flower garden. The best means of propagation is by cuttings, which may be inserted now if they are available. Insert them in a sandy compost in boxes and place them in a heated pit till they have rooted. They may then be placed in a cold frame.

The Rock Garden.—Any alterations or additions to this part of the garden should be accomplished as soon as possible, so that the planting of dwarf shrubs or other hardy subjects may be done. The making of a rock garden is a very fascinating phase of flower gardening, and to my mind the point which needs most consideration is the choosing of the site.

The Hardy Fruit Garden.

Orchard Trees.—These must have their annual pruning or thinning. When trees have assumed very large proportions, all that can be done is to thin out the branches where they have become too dense, especially those which are crossing each other. This annual thinning of large orchard trees is just as necessary as the pruning of trained trees in other parts of the garden. Liquid manure from the farmyard, which is usually very plentiful at this time of the year, should be thrown over the rooting area of old-established trees.

Pruning.—The pruning of all fruit trees which are near the vegetable quarters must be done as

soon as possible, so that digging operations may be carried out without delay. Gooseberries need thinning severely, cutting out an old branch here and there to make room for young growth. Black Currants may have all the old fruiting wood removed if there are sufficient young growths to furnish the bushes. The side shoots on Red and White Currants must be cut well back, the leading growths being left a few inches for extension.

The Kitchen Garden.

Onions.—Many growers now cultivate a portion of this valuable crop by sowing seeds in boxes under glass, planting the seedlings out in the spring. For this purpose seeds should be sown during the present month. Sow thinly in a fine compost of loam and leaf-soil, and place the boxes on a shelf in a vinery or Peach-house which has just been started.

Cauliflowers.—The autumn-sown plants must be regularly attended to in the matter of watering, giving them an occasional application of liquid manure. Admit plenty of air to the plants during favourable weather. A sowing of an approved early variety may be made now in boxes and placed in a moderately warm house.

Forcing Vegetables.—Place successional batches of Asparagus, Seakale and Rhubarb into the forcing quarters at regular intervals.

French Beans.—Where plenty of convenience is available, batches of these may be potted up at intervals of ten or twelve days. Plant five or six seeds in a 7-inch pot in a rich compost. They require plenty of heat and moisture, and a position near to the glass. A dwarf variety, such as Osborne's Forcing, is most suitable for the earliest crops. The Belfast is also an excellent variety for forcing.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Seakale.—Strong crowns should be lifted and are easily forced in the Mushroom-house, or may be planted five in a 10-inch pot and covered by an inverted pot of the same size and placed in a warm house, taking care that the top pots have their holes perfectly closed.

Endive and Chicory make good substitutes for Lettuces during the winter, and should be put in to blanch quite a fortnight before the date they are required. These likewise could be brought along in the Mushroom-house.

Tomatoes.—A main sowing will be made at this time of a reliable and proved variety. Sow thinly and evenly, so that the small plants may readily be separated when it is time for them to be potted off singly. A shelf near the glass in a warm house will suit them until they are 6 inches or so in height. After this stage they will grow more sturdily if kept in an intermediate temperature.

The Hardy Fruit Garden.

Autumn-Fruiting Raspberries.—These are a valuable addition to those who have to maintain a supply of dessert in great variety over a long period. Unlike summer-fruited sorts, they produce their fruit on the current year's growth. This makes it necessary for all the canes to be cut down now. A new plantation of these could be made at the present time. Choose a sheltered position and plant in rich soil, if possible adding new loam with plenty of lime rubble.

Plants Under Glass.

Chrysanthemums.—All cuttings of Chrysanthemums that are to be grown in pots should be put in during this month. Any plants that up to now have failed to produce young growths should be put in a warm house until sufficient cuttings have been obtained.

Tree Carnations.—Houses devoted to these plants should be kept a little drier than during the summer. A night temperature of 48° to 50° should not be exceeded, or weak stems and split calyces will result. Opinions differ as to the best time to propagate. Here we find the best plants are produced from cuttings inserted in January. A reliable method is to dibble the

cuttings thickly in 4-inch pots filled with pure sand in a moist state, and put them in a case in some cool house. If bottom-heat is used, it must be very gentle.

Bulbs.—A number of these can be placed in heat each week to keep up the supply of cut flowers.

Flowering Shrubs.—To keep the flower house gay, Lilacs, Azaleas, Pyruses, Prunuses and Wistarias must be brought along in heat. All the foregoing force very readily.

Begonia Gloire de Lorraine.—If the early flowered plants were partly cut over during December and slightly rested, they ought by now to have produced enough cuttings for the earliest batch. These should be dibbled in pans of very light flaky leaf-mould and coarse silver sand, and plunged in a propagating-case with a brisk bottom-heat.

Pot Roses.—Slightly prune a batch of these now and place in a house with a temperature of 55°. Careful ventilation, avoiding a draught, will to some extent prevent mildew.

Fruit Under Glass.

Vines.—All Grapes should by this date be cut. If not required for immediate use, they can be bottled, which will keep the berries in a plump condition for some time to come. This operation simply consists in filling bottles with water, to which add a few nodules of charcoal. Then place the bottles in a slanting position on the edge of a shelf in the fruit-room, so that the bunches may hang clear when their stalks are put in the water. Look over the bunches frequently for bad berries and keep the bottles full of water.

Resting Vines.—If we except the early vinery, all Vines should be at rest during this month. Plenty of air must be kept on constantly, only closing the ventilators during frost. Pruning should be completed and the vineries given a thorough scrubbing.

Renovating Vine Borders.—Greatly improved vigour and finer fruit can be had by renewing Vine borders when they begin to show signs of exhaustion. The present is a suitable time for this operation.

Strawberries.—Another batch of these may be brought indoors to succeed those started during December. They benefit from a rich top-dressing. If room is not to be had on vinery or Peach-house shelves, they can be brought along very nicely if plunged in a mild hot-bed of stable litter and leaves.

Pot Figs.—Where very early Figs are required, trees in pots will be found to mature fruit quicker than planted-out specimens. A number of these may now be put in heat, and will be greatly assisted if plunged in a gentle hot-bed.

The Flower Garden.

Naturalised Bulbs.—If any leaves remain where these are growing, a final brush up should be given now, so that there will be no danger of injuring the young growths once they appear above the ground.

Stakes and Canes.—Fine opportunities for overhauling these are offered during stormy weather, which prevents the ordinary outdoor work being proceeded with.

Pentstemons.—A great variety of colour may be had during the autumn if seed of a good strain is sown now. For summer bedding the plants are generally propagated by cuttings put in cold frames during the autumn. These must not in any way be coddled, but should be protected during frost. George Home is still perhaps the best all-round variety.

Violas.—These plants which were struck during the autumn will be found to survive the winter much better if the lights are removed when there is no danger of frost or rain. As the Viola is a perfectly hardy plant, it should not be protected except during very severe weather.

East Lothian Stocks.—Unlike Ten-week Stocks, these fragrant flowering plants require a long season of growth, and should be sown now in seed-boxes. Place them in a warm greenhouse or vinery just started, and remove to cooler conditions when their seed leaves have developed.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

THE IDEAL CATALOGUE.

AS the Daffodil is my favourite flower, naturally one of my pleasant anticipations every week is opening my GARDEN to see if there is any article about my beloved flower. Alas! of late I have had many disappointments. Please ask the Rev. J. Jacob not to reserve all his efforts for the "Daffodil Year Book," but to write occasionally in THE GARDEN about the Daffodil. Lately he seems to have confined himself mainly to Tulips. [See his article last week.—ED.] In December 19 issue, page 611, however, "Somerset" has contributed an interesting criticism of a Daffodil catalogue.

May I state my little grievance with catalogue compilers? Not being overburdened with riches, I can only afford to grow a few of the better sorts, and I want only those that are good doers. Of course, if they are up to exhibition form as well as possessing good constitutions, so much the better. My grievance with "X. and Sons'" catalogue, and most other Daffodil catalogues that I know, is that they describe and mark the flower almost entirely from an exhibition point of view. They do not, I think, cater sufficiently for the numerous Daffodil-lovers who do not exhibit, but who like to grow a few sorts of rather higher class than princes and ornatus.

For example, all catalogues would give more "stars" to King Alfred, Ariadne or Homespun than to Victoria, Frank Miles or Torch; but I venture to say that the last three would prove more satisfactory to the ordinary grower than the former trio. Maybe King Alfred, Ariadne and Homespun are not so well suited for the North of England as the South. At any rate, they are not happy in my exposed garden in Westmorland. Perhaps, Mr. Editor, you will get someone to write on Daffodils suitable for the North as you have done lately with regard to Roses. [We will prod Mr. Jacob; he lives in North Shropshire.—ED.] Exhibitors may not like the perianths of Frank Miles and Torch, but these varieties are grand thrivers in the garden, and are fine as cut flowers. What matter if Victoria grown in the open is rather short in the stem! It has few other faults. By the way, are not some people carrying their love of length of stem and excessive height in flowers rather to extremes? They are apparently not satisfied unless their Sweet Peas have stems 2 feet long and they have to wire their Perpetual-flowering Carnations when cut for vases. The newer Violets have legs so long that they can hardly now be described as modest. I think, however, I see signs of a reaction setting in. Even Lord Kitchener (the soldier, not the Daffodil) now approves of bantam battalions!

I am rather rambling, so will return to my love, the Daffodil. That pretty little Daffodil Waterwitch would, I think, be improved if it had a shorter and sturdier stem. In my windswept garden more than half the flowers every year are spoilt by the stems being bent and twisted by the wind.

When I can attend Daffodil shows, I, of course, make notes of the various flowers that I would like to add to my small collection in the distant future when they reach a price I can afford; but I have no means of knowing whether such as Loveliness, Mrs. Robert Sydenham, Dosoris or Great Warley and others that I admire have good constitutions or not, and I cannot afford to buy a great many sorts and find out for myself.

An Irish dealer has made a beginning of adding to the description of some of the Daffodils that he deals in a note as to their constitution, "good" or "poor," as the case may be. Will the compilers of the ideal catalogues kindly do the same? We would not expect perfect agreement, as, of course, soil, climate, &c., will always play their part; but it would be a great help to an ignorant and bewildered Daffodil-lover like myself, and I fancy I am not "the only pebble on the beach."

J. R.

ROYAL HORTICULTURAL SOCIETY'S DAHLIA TRIAL AT DUFFRYN, NEAR CARDIFF, 1914.

THE society's trial of Dahlias from a garden decorative point of view was again carried out in 1914, by kind permission of Reginald Cory, Esq., at Duffryn, near Cardiff, and again proved a great success. As the trial on this occasion was confined to seedlings not yet in commerce, and any varieties offered for the first time in 1914, the trial was not so extensive as in 1913, though some two hundred and forty varieties were sent in, and the number of novelties was largely increased both from at home and abroad, showing evidence of a greatly increased interest in these trials. The Pæony-flowered section was the most numerous, no fewer than 110 varieties being represented. The Collarette section totalled forty-four, the Cactus thirty-three, the singles thirty-two, the decorative varieties seventeen, the Pompons three, and one Pompon Cactus. Unfortunately, the first week in September was very wet, with high winds prevailing day after day, so that many of the flowers were damaged and were not seen at their best. At the time of inspection, however, they were rapidly recovering.

The Pæony-flowered varieties are advancing, having much better stems than the older forms; but little, if any, improvement was apparent in the Collarette section. The Cactus varieties sent in were a decided improvement on those of last year. Unfortunately, many of them were making a second growth, thus hiding to a certain extent the first flowers. The decorative section had withstood the wind and rain best of all, and a considerable improvement was noted here in the colours, stem and freedom of flowering. The other sections did not contain anything that could be called better than the varieties already in commerce.

The £5 5s. cup, kindly presented to the society by Mr. Cory, was recommended to be awarded to Mrs. J. C. Vaughan, a Pæony-flowered form. Though its first flowers are all double, later in the season it develops a distinct eye.

The trial was admirably carried out, and gave evidence of the great care and attention that had been bestowed upon the plants by Mr. Cory, to whom is tendered the grateful thanks of the society and of all admirers of the Dahlia as a decorative garden plant. Awards were given to the following:

CACTUS VARIETIES.

Name.	Sender.	Description.	Height. Feet.
Astree.....	Cayeux & Leclerc	Rich, deep pink	4
Beauty	Stradwick	Pink, florets slightly twisted	5
Honesty	West	White, shading to pink	4
Louvain	Dickson & Robinson	Pale yellow, centre shading to pink	4½
Sophocles	Cayeux & Leclerc	Deep terra-cotta	3

COLLARETTE VARIETIES.

Name.	Sender.	Description.	Height. Feet.
Avon	Dobbie ..	Vermillion scarlet self, collar shaded lemon	3½
Doon	Dobbie ..	Bright scarlet self, lemon collar	2½
El Kantara	Cory.....	Cherry red, collar white	4
Louie Blackman.	Stradwick	Buff, suffused vermillion	4
Ruby	Stradwick	Vermillion scarlet and yellow, lemon collar	3½
Warspite	Stradwick	Crimson scarlet, collar shaded white	3

SINGLE VARIETIES.

Crawley Star ...	Cheal ...	Rosy pink.....	4
Oran	Cory	Crimson scarlet	3½
Stora	Cory	Rosy crimson, yellow disc, large	3½

PÆONY-FLOWERED VARIETIES.

Amber Queen ...	West	Amber, shaded orange	5
An. Schieber ...	Pätzner ..	Rich yellow	5
Beacon	West	Intense scarlet	5½
Berlioz	Riding ..	Old gold, suffused salmon	5½
Beethoven	Riding ..	Amber	3½
Dinant	Dickson & Robinson	Lemon yellow	3½
Great Britain ..	Warnaar ..	Mauve	3
Hort. Fict	Warnaar ..	Salmon buff	3
Juliet	Burrell ..	Buff, suffused salmon	6
Melilla	Cory	Clear yellow	3
Malines	Dickson & Robinson	Yellow, suffused vermillion	4½
Mozart	Riding ..	Bright, deep crimson	4
Mrs. J. C. Vaughan	Warnaar ..	Lemon yellow (cup variety)	4½
Termonde	Dickson & Robinson	Mauve pink	4
Weber	Riding ..	Rose pink	3½
White Seedling ..	Pätzner ..	White	5
White Lady	Krelage	White, narrow petals	5

DECORATIVE VARIETIES.

Futurity	West	Salmon	4
Godfrey's Crimson	Godfrey ..	Bright crimson	5
Mabel	West	Light mauve	4
Mrs. Lang	West	Bright crimson	4
Minnie Burtle ..	Dobbie ..	Scarlet	4
Mirelle	Cayeux & Leclerc	Pale lemon	5
Maid of all Work	Keynes, Williams	Pure white, medium bloom	4
Offenbach	Riding ..	Pure yellow	5
Reginald Cory...	Cheal ...	Crimson, tipped white	2½
Sulphurea	West	Sulphur yellow	4

DAFFODIL NOTES FROM NEW ZEALAND.

Judging at the Midland Daffodil Society's Show.—The sixteenth annual report of the Midland Daffodil Society has recently come to hand, and though the usual dinner and discussion on Daffodil matters did not take place in 1914, it provides interesting reading. The lists of the varieties shown in the various winning stands are always well conned, and enable us to make some comparison with our shows and form an idea as to how up to date we are out here.

The Midland Daffodil Society's exhibition deservedly occupies a leading position among spring shows, and its lead is largely followed by kindred societies in New Zealand and elsewhere. On this ground I feel constrained to refer to one matter disclosed by the report, which has caused me some surprise, and that is the number of stands which secure awards though not complying with the schedule. This feature first caught my attention when, in perusing the 1913 report, I noticed that Mme. de Graaff was shown in the first and second prize stands in Class 4 as a white trumpet (Division I.B), and also in the second and fourth prize stands in Class 5 as a bicolor trumpet (Division I.C).

In going through the 1914 report I note that S.T.H.W. (a new seedling, presumably) is shown in Class 22 as a triandrus hybrid (Division V.), and also in Class 25 as a Tazetta hybrid (Division VIII.), while in at least nine other

stands appear one or two varieties belonging to divisions other than those prescribed (as per list enclosed). These irregularities seem to occur more often in the open than in the amateur classes, and are apparently not dealt with by the judges, who I assume merely adjudicate on the comparative merits of the blooms as staged, and are tacitly acquiesced in by the exhibitors, as no protests are mentioned.

My object in writing is to enquire and ascertain for the benefit of Colonial shows whether the matter has been brought up and considered, and what, if any, remedies are suggested. I know from experience some of the difficulties the judges meet, also the disinclination of exhibitors (especially in a small community like ours, where they are all more or less acquainted) to win on a protest; but it seems hardly fair that exhibitors who are careful to comply strictly with the schedule should be prejudiced in this way. It seems to me that the personal element will usually deter exhibitors from bringing forward these irregularities by way of protest, and that therefore it should be the duty of some official to have them dealt with.

Horticultural Hall, Auckland, New Zealand.—The accompanying view is of the new Horticultural Hall belonging to the Auckland Horticultural Society, and used for the first time on the occasion of the Society's spring show on September 4 and 5 last. The building was erected and occupied as the Art Gallery in connection with the recent Auckland Exhibition, at the conclusion of which the Auckland Horticultural Society took advantage of the opportunity offered and purchased the hall, after having arranged with the City Council as to the ground rent. The situation in the Domain Reserve is one of the most beautiful round Auckland, commanding fine views of the harbour and north shore, and as the Council is maintaining and adding to the lawns, flower-beds, &c., which were laid out for the exhibition, the surroundings of the hall will be a great help to our shows. The building is roomy, convenient, and well lighted by day and night. Exhibitors at the spring show were well pleased with it, and as a great saving in rent, labour and other expenses is effected, as compared with the Town Hall, where the horticultural shows were previously held, the society is to be congratulated on its enterprise, being, as I believe, the first in the colony to acquire show premises of its own.

Auckland, New Zealand. A. E. GRINDROD.

THE EDITOR'S TABLE.

Fruits of *Benthamia fragifera*.—Mr. T. H. O. Pease, Skaigh, Okehampton, Devon, sends shoots of this beautiful shrub, which are bearing ripe fruits. These are about three-quarters of an inch in diameter, dull purplish red in colour, with a rough, wart-like exterior. It would be interesting to learn if this shrub fruits in other parts of the country. Mr. Pease writes: "I

send you some fruit of *Benthamia fragifera* grown here in a garden facing Dartmoor at a height of 900 feet above the sea. There has been much correspondence about the hardiness of *Choisya ternata* which makes me smile. There are large bushes here 7 feet or 8 feet high that get no protection beyond that afforded by surrounding shrubs, and I have not known them cut in the severest frosts."

ANSWERS TO CORRESPONDENTS.

FLOWER GARDEN.

INFORMATION ABOUT LILY POOL (S.).—Unless the plants can be accommodated in the pool itself, the true Water Lilies (*Nymphaeas*) would be quite useless to you. For these an assured depth and supply of water is essential. By arranging mounds of soil at intervals

elegant habit and very free. Either of these would be equally as good as that first named. An alternative plan would be to have a *Godetia* garden, arranging each bed with a different colour, using the double pink-flowered *Schaminii* for the star-shaped bed. In the event of your doing this, we would suggest that the four crescent-shaped beds be all edged with white *Alyssum*.

THE GREENHOUSE.

CYCLAMENS UNSATISFACTORY (J. H.).—Judging by the appearance of the specimen sent, your plants of *Cyclamen* have been kept in a too close and moisture-laden atmosphere. These plants need a free circulation of air around the corms, for which reason they are often stood on inverted pots in order to keep them clear of stagnant moisture. The watering, too, needs to be carefully done, especially when the flower-buds form. So if the crown is wetted, decay is very likely to set in. An excess of stimulants, too, may have the same effect. If the corm were very wet, it is quite possible that the sudden drop in the temperature would help towards the mischief.

FRUIT GARDEN.

TREATMENT OF VINES IN WINTER (Garden Lover).—No time should be lost in pruning the Vines. Delay may cause the wounds to bleed. Cut all the side shoots



THE NEW HORTICULTURAL HALL, AUCKLAND, NEW ZEALAND.

in the bottom of the pool this would be simple enough. The soil should be strong loam with manure, and each mound should contain about six bushels. On to these the plants should be sunk. In no other way will you get the water surface covered with leaves and flowers so well. For the side cavity many things could be named, *Gunnera*, *Swamp Lily*, *Ferns*, *hardy Orchids*, *Reeds*, *Grasses* and the like, though not all of these would spread to the water, and some would be too large for the width of the pool described. Assuming that the outer wall of the pool is quite water-tight, the mound planting suggested might be displaced by breaking into the inner wall of the pool low down to permit of inserting the rhizomes of the *Lilies* therein, so that they will be beneath the water and in touch with the soil provision at the sides at one and the same time. If this is possible, please write us again, with fuller particulars, to enable us to reply in detail.

ANNUALS FOR BEDS (West Lynne).—For the eight-pointed star bed employ a single plant of the Summer Cypress (*Kochia trichophylla*) in the centre, with either *Godetia* *Crimson King* or *Tagetes* *Legion of Honour* around—the last named has golden yellow flowers with a velvety maroon blotch on each petal—using the white *Alyssum maritimum* for the points of the star. For the four crescent-shaped beds we think you cannot do better than employ the large-flowered *Nemesias* in pink, yellow, orange, and scarlet, one colour to each bed. There are other varieties of *Godetia*, as *Lady Satin Rose* (rose pink), *Scarlet Queen*, *Ladybird* (white, crimson spotted) and the double pink-flowered *Schaminii*, the last named of

of this year's growth to within one bud of their base (leaving a few leaves on the shoots does not matter). Take off the loose bark from the surface of the Vines by rubbing with the hand. Some people scrape with a knife (do not do this), the object being to expose any embryo insects there may be hiding under the bark. Afterwards wash the Vines with an emulsion of soft soap and warm water, a quarter of a pound of soft soap to a gallon of water. An old carriage brush or one of a similar description is useful for the purpose. Be careful not to brush the buds at the base of the cut shoots. It is these buds which will produce the Grapes. After this is done, sling the Vines loosely to the trellis. Have the glass and woodwork of the vinery washed inside and out. Keep the vinery cool by admitting plenty of air day and night; 8° or 10° of frost will not hurt the Vines. If the border is inside and, as you say, cracking, give it a good soaking of manure-water from the cow or stable yard two or three times. If the border is outside, it will be wet enough, and you had better cover it with fresh leaves to the depth of 7 inches and cover the leaves with a thin layer of straw, cording it down to keep the leaves from blowing about. If the bases of the Vines are exposed where they enter through the wall, protect from frost with haybands or straw. Write us later; we shall be pleased to help you further.

HOW TO PRUNE A NEWLY PLANTED YOUNG PEACH TREE (R. J. F.).—The answer is, prune back to within a foot of the base of new shoots. By doing this you will find in the spring that buds will

form shoots from base to summit of what there is left of these shoots, whereas, if these shoots were not thus severely pruned, new shoots next year would only be formed at the apices of the shoots, leaving their base bare of shoots and fruit for all time afterwards.

TREES AND SHRUBS.

WHEN TO PRUNE CARPENTERIA CALIFORNICA (*Penwarrne*).—You cannot do better than prune your *Carpenteria* about the first week in March. Prune just sufficiently to shape the bush, but do not cut it back unduly hard. Your plant of *Clematis* can be pruned any time after the end of January and before the new shoots appear. It can be pruned back to within two or three buds of the base of last season's wood, and some branches can be removed outright if you wish.

PLANTS FOR HEDGE (*Enquirer*).—A good Thorn hedge will answer your purpose in the described position better than the Myrobalan or Cherry Plum. To give entirely satisfactory results the Cherry Plum should have a fairly open position, and even then it scarcely forms such a strong hedge as the Hawthorn. It, however, grows more rapidly in the early stages, as the Thorn is rather slow-growing for a few years. Be careful to work the ground well before planting. We do not know where a good Myrobalan hedge is to be seen.

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Messrs. J. Stormonth and Sons, Kirkbride, Carlisle: Seeds.
Messrs. Dobbie and Co., Edinburgh: Seeds.
Messrs. Lemoine and Sons, Rue du Montet, Nancy: Gladioli.
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Test one of these Sweet Pea Collections on these terms.

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12 Up-to-Date Varieties. 10 seeds of each.

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THE GARDEN.

No. 2252.—VOL. LXXIX.

JANUARY 16, 1915.

NOTES OF THE WEEK.

Kew and the War.—According to the current issue of the *Kew Bulletin*, the number of men from the Royal Botanic Gardens now serving with His Majesty's Army is sixty-six.

The Chinese Witch Hazel.—For six weeks—from the middle of December to the end of January—should the weather prove moderately mild, the bright golden blossoms of the Chinese Witch-Hazel (*Hamamelis mollis*) make it one of the most attractive plants imaginable, for not only is every twig laden with showy flowers, but they are also fragrant with a pleasant Primrose-like perfume. Strange to say, although this shrub was introduced as long ago as 1879, it is only during the last fifteen years that it has come to be known, and even now, although it is the best of the Witch Hazels, it is by no means common. When planted in rather light, loamy soil containing a little leaf-mould or peat, it grows well and soon forms a shapely bush 3 feet or 4 feet high; eventually it will probably grow three times that height.

A Good Greenhouse Acacia.—Among the Acacias of dwarf habit suitable for growing in pots, few can surpass *A. platyptera*. This forms a neat, erect bush from 18 inches to 3 feet in height, which from November until well into February produces its golden blossoms in abundance. These are globular, and are borne in clusters of usually five to eight. In mature plants true leaves are seldom present, their functions being carried out by the flattened leaf-like stems. To keep the plants dwarf and shapely, the growths are cut back fairly hard after the flowers have faded. In common with other members of the family, this Acacia appreciates soil that contains a quantity of peat and sand, with good loam forming the bulk.

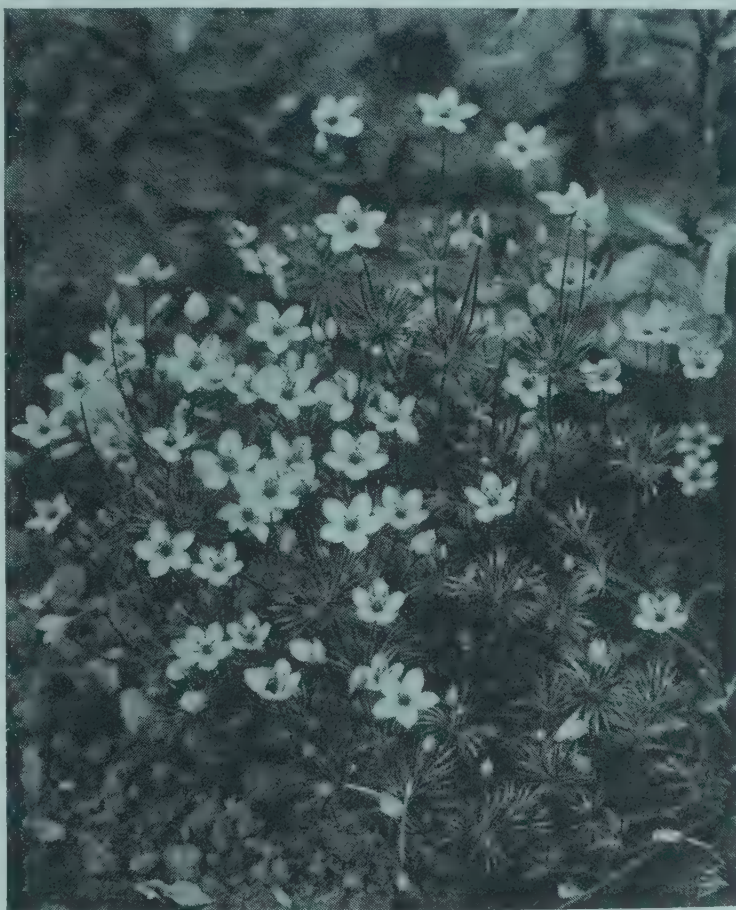
The True Chinese Primula.—In House No. 4 at Kew just now there are some flowering plants of *Primula sinensis* which are the direct descendants of plants raised from seeds collected in China by Mr. E. H. Wilson. These have pale mauve blossoms of stellate shape, the whorls of flowers being borne in tiers as in the stellate garden forms of *Primula sinensis*. It has been generally assumed that our garden varieties of this *Primula* have all originated from the wild plant, but we believe some authorities are now disposed to doubt the correctness of this. It

rather seems as though the so-called wild Chinese *Primulas* that have reached this country previously have been cultivated varieties in China.

Our Sub-Editor on Active Service.—We think the following letter from our Sub-Editor, Mr. H. Cowley, who is now serving with the British Expeditionary Force in France, will be of interest to readers: "Since our arrival in France we have been camped under canvas in a dreadful quagmire,

thatched cottages, but the wilding that has given me the greatest pleasure is Traveller's Joy, here, as in our Surrey lanes, seen rambling over farm buildings and invariably marking the approach to a village, often a most welcome sight after a march over open country."

A Beautiful Hardy Annual.—The illustration on this page represents one of the most charming of all hardy annuals, and one that ought to be found in every garden. It is usually listed in seed catalogues as *Leptosiphon densiflorus hybridus* or *Leptosiphon French hybrids*. Seed sown in the open early in April quickly germinates, and the seedlings soon make neat tufts of plumose greenery, whence the dainty little flowers spring in abundance. These are of various art shades, and never fail to elicit praise from all who see them. As its average height is 4 inches, it is ideal for carpeting beds of taller plants, for edgings to pathways, and for nooks in the rock garden. It will thrive in any good garden soil, but should be given a sunny position, as the flowers do not open well in shade. We refer to it now so that it may be included in the seed order, as we do not know of any other dwarf hardy annual capable of giving so much pleasure as this.



LEPTOSIPHON DENSIFLORUS HYBRIDUS, A BEAUTIFUL DWARF HARDY ANNUAL.

A Useful Old-Fashioned Greenhouse Plant.—Those who remember the time when hard-wooded greenhouse plants were well cultivated and highly appreciated will know how valuable *Chorizanthe ilicifolia* is for the conservatory during the early days of the year. It may still be found in a number of good gardens, but deserves to be much more widely known. It makes a neat bush, and from January onwards until well into the spring is freely bespangled with its small, Pea-shaped blossoms, which have a vivid orange standard and purple wings. These contrast charm-

ingly with the deep green, Holly-like foliage. This and other members of the family need good loam, peat and sharp sand as a rooting medium, and at repotting, which is best done just as new growth is being made, this must be rammed quite firm. To keep the plants bushy they may be cut hard back after flowering. In the month of July the pots should be plunged in ashes outside, so as to thoroughly open the new wood before the winter.

but, despite most depressing surroundings, we have kept merry and bright. Now we are billeted in a small village, very comfortable, well fed and well worked. There is one side of the life that most fellows miss, but never escapes my observation—I mean the trees and other vegetation. The Venetian Sumach looks fine, and the Norfolk Island Pine—looked upon as tender at home—stands the severe weather here with impunity. I have seen Irises growing freely on the roofs of

form shoots from base to summit of what there is left of these shoots, whereas, if these shoots were not thus severely pruned, new shoots next year would only be formed at the apices of the shoots, leaving their base bare of shoots and fruit for all time afterwards.

TREES AND SHRUBS.

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175c, Mill Street,
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THE GARDEN.

No. 2252.—VOL. LXXIX.

JANUARY 16, 1915.

NOTES OF THE WEEK.

Kew and the War.—According to the current issue of the *Kew Bulletin*, the number of men from the Royal Botanic Gardens now serving with His Majesty's Army is sixty-six.

The Chinese Witch Hazel.—For six weeks—from the middle of December to the end of January—should the weather prove moderately mild, the bright golden blossoms of the Chinese Witch Hazel (*Hamamelis mollis*) make it one of the most attractive plants imaginable, for not only is every twig laden with showy flowers, but they are also fragrant with a pleasant Primrose-like perfume. Strange to say, although this shrub was introduced as long ago as 1879, it is only during the last fifteen years that it has come to be known, and even now, although it is the best of the Witch Hazels, it is by no means common. When planted in rather light, loamy soil containing a little leaf-mould or peat, it grows well and soon forms a shapely bush 3 feet or 4 feet high; eventually it will probably grow three times that height.

A Good Greenhouse Acacia.—Among the Acacias of dwarf habit suitable for growing in pots, few can surpass *A. platyptera*. This forms a neat, erect bush from 18 inches to 3 feet in height, which from November until well into February produces its golden blossoms in abundance. These are globular, and are borne in clusters of usually five to eight. In mature plants true leaves are seldom present, their functions being carried out by the flattened leaf-like stems. To keep the plants dwarf and shapely, the growths are cut back fairly hard after the flowers have faded. In common with other members of the family, this Acacia appreciates soil that contains a quantity of peat and sand, with good loam forming the bulk.

The True Chinese Primula.—In House No. 4 at Kew just now there are some flowering plants of *Primula sinensis* which are the direct descendants of plants raised from seeds collected in China by Mr. E. H. Wilson. These have pale mauve blossoms of stellate shape, the whorls of flowers being borne in tiers as in the stellate garden forms of *Primula sinensis*. It has been generally assumed that our garden varieties of this *Primula* have all originated from the wild plant, but we believe some authorities are now disposed to doubt the correctness of this. It

rather seems as though the so-called wild Chinese *Primulas* that have reached this country previously have been cultivated varieties in China.

Our Sub-Editor on Active Service.—We think the following letter from our Sub-Editor, Mr. H. Cowley, who is now serving with the British Expeditionary Force in France, will be of interest to readers: "Since our arrival in France we have been camped under canvas in a dreadful quagmire,

thatched cottages, but the wilding that has given me the greatest pleasure is Traveller's Joy, here, as in our Surrey lanes, seen rambling over farm buildings and invariably marking the approach to a village, often a most welcome sight after a march over open country."

A Beautiful Hardy Annual.—The illustration on this page represents one of the most charming of all hardy annuals, and one that ought to be found in every garden. It is usually listed in seed catalogues as *Leptosiphon densiflorus hybridus* or *Leptosiphon French hybrids*. Seed sown in the open early in April quickly germinates, and the seedlings soon make neat tufts of plumose greenery, whence the dainty little flowers spring in abundance. These are of various art shades, and never fail to elicit praise from all who see them. As its average height is 4 inches, it is ideal for carpeting beds of taller plants, for edgings to pathways, and for nooks in the rock garden. It will thrive in any good garden soil, but should be given a sunny position, as the flowers do not open well in shade. We refer to it now so that it may be included in the seed order, as we do not know of any other dwarf hardy annual capable of giving so much pleasure as this.

A Useful Old-Fashioned Greenhouse Plant.—Those who remember the time when hard-wooded greenhouse plants were well cultivated and highly appreciated will know how valuable *Chorizema ilicifolium* is for the conservatory during the early days of the year. It may still be found in a number of good gardens, but deserves to be much more widely known. It makes a neat bush, and from January onwards until well into the spring is freely bespangled with its small, Pea-shaped blossoms, which have a vivid orange standard and purple wings. These contrast charm-



LEPTOSIPHON DENSIFLORUS HYBRIDUS, A BEAUTIFUL DWARF HARDY ANNUAL.

but, despite most depressing surroundings, we have kept merry and bright. Now we are billeted in a small village, very comfortable, well fed and well worked. There is one side of the life that most fellows miss, but never escapes my observation—I mean the trees and other vegetation. The Venetian Sumach looks fine, and the Norfolk Island Pine—looked upon as tender at home—stands the severe weather here with impunity. I have seen *Iris*s growing freely on the roofs of

ing with the deep green, Holly-like foliage. This and other members of the family need good loam, peat and sharp sand as a rooting medium, and at repotting, which is best done just as new growth is being made, this must be rammed quite firm. To keep the plants bushy they may be cut hard back after flowering. In the month of July the pots should be plunged in ashes outside, so as to thoroughly ripen the new wood before the winter.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

The Journal of the Royal Horticultural Society.—Though agreeing in the main with Mr. Engleheart's criticisms of this publication in last week's issue, page 14, and sharing in his objection to the amount of American material that the Editor has recently seen fit to incorporate in it, my complaint is more directed against the amount of purely scientific writing and its disproportionate relation to the treatment of everyday practical subjects. To one of the savants who desires to add to his store of knowledge by acquiring a better acquaintance with "The Plant in Relation to its Biological Environment," there must be at least a hundred Fellows who will eagerly devour, and gain profitable instruction from, the most practical and readable little article by Mr. H. G. Mount on the treatment of early Roses in pots. In my opinion Mr. Mount's four pages are worth more to the ordinary Fellow than the whole of the rest of the contents of this number of the Journal put together. The more of this sort of thing that Mr. Chittenden can give his readers the better, and the less likely will they be to throw the Journal aside almost as soon as it is opened, as is now very frequently the case.—F. HERBERT CHAPMAN.

Shows, Schedules and Judges.—After each show season one looks back with an increasing conviction that some reform is needed in the matter of shows, schedules and judging. We have a very large number of shows crowded into two or three months of the summer, the dates of some of which are fixed without regard to clashing, which in many cases might well be avoided. Of recent years it is becoming very apparent that show committees look upon trade exhibitors as their legitimate prey, and appear to have got the idea that the trade cannot exist without their show. They do not consider that without the trade their show would be very tame indeed; neither is the amount of stuff, the time, the work and the expense taken into account. True, there are a few which offer fair inducements in the way of prize money; there are more which offer a small amount for a big display, which does not even cover the cost of transit; while many, again, offer medals (which sometimes consist of the cards only). They give little or no assistance to enable the exhibitor from a distance to get "fixed up," give no help in finding suitable accommodation for a stranger, or to get away comfortably after the close. How often does the trade exhibitor lose his connection for home by having to wait for a conveyance! In fact, by many societies the trade exhibitor is treated unfairly and unjustly, and if at some time he consults his own pocket and becomes an absentee, perhaps a lesson will be taught. It must be in these days of keen competition for shows, the show

unable to interpret them. In Sweet Pea classes a great laxity as to number is often allowed, while in hardy flowers not one schedule in fifty stipulates that they shall be outdoor grown, and frequently an exhibit—poor in other respects—with one or two bunches of indoor-grown flowers (and here Liliiums, such as longiflorum, seldom grown outside, generally play a part), takes the honours, while an exhibit staged according to the spirit of the schedule is passed over; and we have seen some glaring examples of this. As to judges, how often it is apparent that these are selected from the position they hold without regard to their capability to fairly judge the



A FLOWERING SPRAY OF THE SOUTHERN HEATH
(ERICA AUSTRALIS).

classes assigned to them. It does not follow that an expert fruit-grower is an expert florist, or vice versa. Nor does it follow that a man holds his position always because of his expert knowledge and experience of either; and it is essential, nay, it is but justice, that a judge should be selected who knows, and has practical experience of, the classes he has to judge. Much dissatisfaction would then be saved. Schedules are now being prepared for another "round." Is it too much to ask that these points may receive consideration?—EXHIBITOR. [As this subject is of special interest just now, we shall be glad to have the opinions of others.—Ed.]

The Southern Heath (Erica australis).—

The accompanying photograph, which was taken on April 1 of last year, depicts a spray of the beautiful Southern Heath. With us in a rather sheltered Surrey garden the plants are in full beauty during April and early May. I remember early last year that Mr. T. Wilson, writing from Glamis, described *E. australis* as "generally in flower in the month of June." This is probably accounted for by a cooler soil and late locality. The Southern Heath has purplish red flowers, richer and rather brighter in colour than those of the Mediterranean Heath. From this species the subject of the illustration is also readily distinguished by its open, looser habit of growth. Growing from 3 feet to 5 feet or more in height, *E. australis* is a native of Portugal. It may be described as just on the border and of hardiness, for while the plants have come through the last two or three winters unharmed, we always insert a pot of cuttings of this species in company with *E. lusitanica* (codonodes) and *E. Veitchii*, which with us are the tenderest Tree Heaths. Another species which differs here from Glamis in the season of flowering is the South European *E. multiflora*. My notes say August 12 to October 24; at Glamis it flowers in the New Year.—A SURREY GARDEN.

The Late W. B. Latham : An Appreciation.

It was with feelings of deep regret that the writer, reading THE GARDEN of January 2, became acquainted of the death of Mr. W. B. Latham. I feel also that many gardeners and amateurs, throughout the Midland Counties especially, would receive the news with an equally genuine sorrow. To the many horticulturists who at one time or another had the privilege of knowing Mr. Latham must come the feeling of a real personal loss. During the period of his curatorship of Edgbaston Botanic Gardens, hundreds of gardeners must have had the benefit of his wise counsel. He was in his happiest vein when among his beloved plants or at any meeting where plant-life was the premier subject. At such meetings he was always chairman, and all present would feel that a master of craft was taking the lead. His wide knowledge of plants and their culture he was ever ready and willing to impart to anyone. He always appealed to the young men to seize every opportunity of acquiring knowledge, and several, mainly through his help, have become famous. He was indeed a lover of Nature, of things beautiful, which, I think, played a prominent part in his successful life, and yet he was the most simple-hearted of men. If I remember rightly, on the occasion of his sixtieth birthday and as chairman of a gardeners' meeting he remarked that he had lived for sixty years, only to feel how little he knew, for gardening was never learnt. His passing away leaves one with the thought that gardening is the poorer for his loss; but his charm and geniality of manner, his kindly advice and greatness of heart, will, I am sure, be cherished by many of your readers to the memory of Mr. W. B. Latham.—W. HOLCOMB, Bearwood, Staffs.

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orders.

Funkia subcordata grandiflora.—If Mr. Comfort, whose note on this plant appears on page 2, issue January 2, will grow the above variety, he will have a pure white Funkia and a fragrant one too; in fact, the blossoms of this variety are almost as good as those of *Pancreatum fragrans*. With me this Plantain Lily succeeds admirably in our stiff soil. Is there such a variety as *F. subcordata alba odorata*?—E. M.

Mildew-Proof Roses.—I have read with much interest the various notes which have of late weekly appeared in *THE GARDEN* regarding mildew-proof Roses. I quite agree with what Mr. John W. Hicks says as to certain Roses being attacked by mildew in certain localities and immune in others. Last year I had practically no trouble with either mildew or green fly, and the reason for this is simply that early in the season I sprayed every plant weekly (though I have not a large collection, but have over a hundred varieties) with Calvert's Carbolic Soft Soap. This preventive I can, therefore, highly recommend to all rosarians who wish to have nice clean plants. Perhaps it may interest readers to know that on New Year's Day, when there was 12° of frost and both curling and skating were indulged in here, I cut some beautiful blooms, grown in the open, from the following dwarfs, viz., Caroline Testout, Earl of Warwick, Friedrichsruh, Victor Hugo and Comtesse Icy Hardegg.—J. D. LAWRIE, *Craigielea, Duns, N.B.*

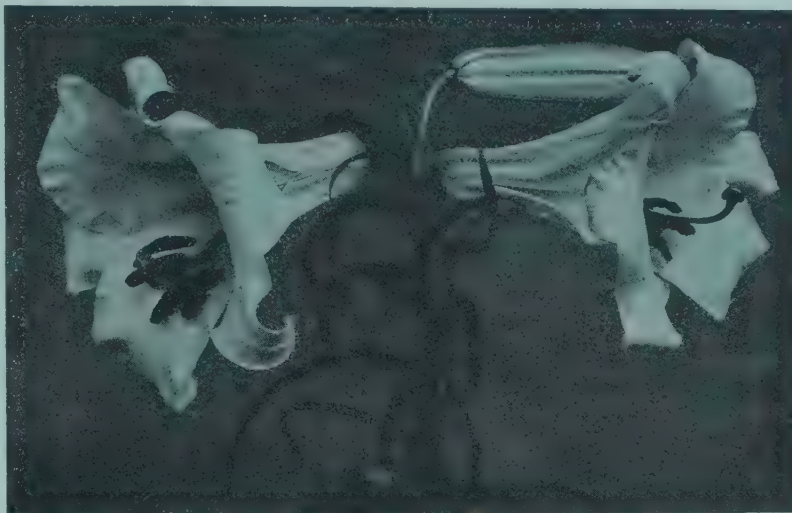
Butcher's Broom and Other Plants.

—You often refer to the dioecious character of the Butcher's Broom and the necessity of having both male and female plants if a display of berries is desired. Nobody who has ever seen a good plant in fruit can forget it, but what is wanted to be known is where to get a female plant or berries to raise plants from. For over twenty years have I received the invariable reply from nurserymen who have been asked for female plants, "None in stock." I was, fortunately, able last month to obtain three fruiting plants, but that apparently exhausted the supply. Then, as regards the flowering of the Banksian Rose, so frequently asked about and a blossoming plant of which cannot be purchased. Why is it not possible to buy a plant which will flower, when a piece broken off an old flowering climber, started before modern nursery grafting came into fashion, will grow and bloom? Is it the fault of the grafting? One more reference—as to *Iris susiana* not flowering. Perhaps if growers never allowed any side shoots to start and forced the growth into one centre stem, they might be successful.—A. L. FORD.

Cuttings with "Heels."—While wishful to impart information on matters horticultural to those with but little experience, would it not be much more to the point if writers would be a little more explanatory in a concise manner? Take, for example, the two notes on the above subject on page 594, issue December 12, 1914, and page 2, January 2. Practical persons know quite well that cuttings with heels are in some cases a great advantage; in others the reverse. Both writers are not clear enough to the uninitiated as to what subjects should be handled on the heel principle or the reverse. In the case of soft-wooded plants,

cuttings succeed best when cut close below a joint, not midway. Geraniums will root when cut midway between two leaves, but generally the portion has to first decay up to the joint, when rooting then quickly takes place. In cases like *Alternantheras*, the necessity to cut to a joint is not so great. The propagation of conifers, Roses under glass, shrubs generally, Lavender, &c., all succeed better under the heel system than without, especially with Roses under glass and in the open. No plant that I know displays the advantage of adding a heel so much as a Laurel cutting. In a like manner *Aucubas* respond quickly under glass to root production from heels as opposed to midway severance.—S. [Mr. Jenkins will deal fully with this subject in our next issue.—ED.]

Ginkgo biloba or Maidenhair Tree.—The Japanese name of this curious tree is Ginkyo or Jeho, and the fruit is called Ginnan. To one who has known and loved the Ginkgo in many parts of Japan, it seems far easier and better to call it by that name than to trot out the whole twelve syllables of *Salisburia adiantifolia*, and I hope your correspondent "H. P.," whose note appears on page 2, issue January 2, will



LILIAM REGALE, OFTEN KNOWN AS L. MYRIOPHYLLUM. IT IS A COMPARATIVELY NEW SPECIES TO OUR GARDENS.

allow me to disagree with him when he calls Ginkgo "an awkward sounding word." The penultimate "g" should be spoken softly—more like "y." The fruit we call Persimmon comes from Japan, and there is called Kaki. In France the Persimmon is better known than in Britain, and I am told the French now call it Kaki. Why should we be afraid to call the Ginkgo by its original name? I would be glad to know what name the French give to it. The fruits, or rather cones, of the Ginkgo are more like Olives than Larch or Fir cones, and the Japanese often use them in a pickled form, just as we use Olives. They are, however, very inferior to Olives. The Ginkgo seems to be quite hardy in Perthshire, but the comparative severity of the winters hinders vigorous growth. In Japan, especially in Kiyushiu, I have often seen Ginkgo trees well over a hundred feet in height. At a little distance they rather resemble Poplars.—J. H. D.

FORTHCOMING EVENT.

January 19.—Royal Horticultural Society's Fortnightly Meeting and Exhibition, Vincent Square, Westminster, 1 to 5 p.m.

SOME HARDY LILIES.—III.

SUB-GENUS EULIRION.

(Continued from page 16.)

Lilium regale, introduced from Western China about the end of last century, is the most valuable addition to the list of cultivated Lilies that has been made since Messrs. James Veitch and Sons brought over *L. auratum* some thirty years earlier. It was named at first *L. myriophyllum*, but is quite distinct from Franchet's Lily of that name. It well merits its new title—the Royal Lily—for it is a truly splendid thing, and possesses, in addition to singular beauty, a fine constitution, qualifying it to take rank among the easy Lilies. It demands much the same treatment as *L. auratum*, except that it relishes lime, which the other detests. Let the bulbs be kept in pots till they form basal roots freely; then for permanence plant them out deeply in generous, loamy soil with an admixture of ground limestone. The drainage must be perfect, although this species is not nearly so liable to injury from winter wet as some of its congeners. The Royal Lily has affinities with the tender *L. longiflorum* and the more or less hardy *L. Brownii*; but is easily distinguished from both when growing by the densely crowded linear leaves that clothe its 3-foot stem. The snowy perianth is more or less splashed with maroon outside and richly suffused with gold within the throat. The flowering season is in July.

L. rubellum is as coy and capricious as *L. japonicum* (Krameri), whereof it is a miniature in form and colour of flower. Being quite frost-hardy, if it could be sent from Japan by some friendly hand soon after the flowering season is over—that is, in early summer—it might prove a less difficult subject; but it has to wait till the usual autumn and winter exports are despatched, by which time the small bulbs are in the worst possible condition to encounter the wet and cold of our climate. The best chance of

success is with bulbs raised from seed, and these should be treated as miniature *L. auratum*, deeply planted in well-drained loam, and, in the Southern Counties at least, half screened from scorching sun. Here it may be noted as applying to all Lilies, as well as to every other plant cultivated in gardens, that no uniform prescription can be offered for the amount of exposure to sunlight, so greatly is the power of plants to profit by it or endure it modified by conditions of soil and atmosphere. On cool loam with a cooler subsoil, vegetation will revel in an amount of sunshine that would parch it to tinder on heavy clay or hot chalk. Latitude and longitude also enter into consideration. In the humid West the sunlight is seldom of so searching a character as in the Midlands or on the Eastern and Southern Coasts of England; so that all general directions for the cultivation of shrubs, herbs and bulbs should be read in relation to the meteorology of the district where they are to be grown. *L. japonicum* and *L. rubellum* being the only pink Lilies known, it is hard that we cannot have them at beck and call. Howbeit, there is no reason to despair of solving some day the enigma of their

nature, and it is of hopeful augury that seeds are so freely produced.

L. Sargentiae.—A noble Chinese Lily, until lately reputed a variety of *L. Brownii* under the epithet *leucanthum*, but now admitted to the dignity of a distinct species. It requires much the treatment as *L. Brownii*, and has thriven and flowered well with me in strong loam with sand and lime. The shape of the flowers is much the same as in *Brown's Lily*; but they are gilded outside instead of stained with purple, their appearance being strongly suggestive of carved ivory. This Lily seems to have come to stay, and it unites with its other virtues that of producing innumerable bulbils in the leaf-axils, after the manner of the Tiger Lily. It is, however, somewhat impatient of winter wet, and should be planted 6 inches below the surface on inverted pots, where rapid drainage cannot otherwise be had. It loves lime, and flowers ten days or so later than *L. regale*.

SUB-GENUS ARCHE-LIRION.

L. auratum, the Japanese Hill Lily, is quite the most gorgeous of all flowers hardy in the climate of the British Isles. Among the manifold benefits conferred upon horticulturists by the famous firm of James Veitch and Sons, none shines more conspicuous than their introduction of this splendid plant to our country a little more than half a century ago. That space of time has hardly sufficed to make gardeners in general familiar with its requirements. Of the millions of bulbs imported every year, a very small proportion survive through a second season, else our land would be full of them by this time. Yet the conditions it demands are simple; indeed, my experience of it in the humid atmosphere and cool soil of the West Coast has taught me to regard it as one of the easy Lilies. These conditions are—careful scrutiny on arrival for the detection of fungoid or animal parasites, washing in a 1 per cent. solution of salicylic acid, potting, and keeping in a cold frame till growth starts in spring. If by that time plenty of strong basal roots have been formed, the bulb may be planted 8 inches or 9 inches deep in sound loam with a liberal admixture of sharp sand, pulverised peat or leaf-mould, wood-ashes and no lime. But if, as is probable, the pots contain only stem roots, one must find patience to wait another year before the plants are allowed to flower. The pots should be plunged in the open border, sheltered from scorching sun, and disbudded so soon as they prepare to flower; otherwise flower they will, at the cost of permanent vigour, and perhaps of their further existence. In the following season these bulbs will have filled the pots with basal roots, and should then be planted out in such surrounding that, when the flowering

stem rises, it may meet free air and sunshine, while the root is screened from parching by lowly undergrowth. So treated, this grand Lily comes up year after year, and flowers as lavishly as on the volcanic slopes of its native Fusi-Yama and rising to a far greater height than it does there.

Some good authorities have expressed distrust of peat, preferring leaf-mould. Of course, there is peat *and* peat, especially in the North, where it is often indigestible and reeking with humic acid; but in my opinion peat of good quality, finely pulverised and mixed with one-third its bulk of sand (sea-sand answers perfectly in default of silver sand) cannot be beaten. I have a notion

bulbs have never received any nourishment save what is contributed by the natural leaf-fall of the Rhododendrons. It is sometimes recommended that farmyard manure be laid below the bulbs when planting them. A risky proceeding! Scrupulous care should be taken not to allow it to be in contact with the bulbs. The safer plan is to withhold all manure, except wood-ashes, till the second year, after which top-dressing will stimulate growth and flower production, as it does in the case of all stem-rooting Lilies. There are several varieties of *L. auratum*, far the most vigorous and easily grown being the golden-rayed kind sold as *platyphyllum* (broad-leaved), termed by botanists *macranthum* (large-flowered). Some of the stems in our irrigated border are now (July, 1914) more than seven feet high.

In *rubro-vittatum* (red-banded) the golden streak down the centre of each segment of the perianth is exchanged for glowing crimson. It is less robust than *macranthum*, with smaller bulbs, narrower leaves and humbler stature. Mr. Grove inclines to regard it as a hybrid between *L. auratum* and *L. speciosum*.

In Southern England *L. auratum* often ripens seed, but in Northern districts, where it does not flower till August and September, I have never known it to do so. Propagation, however, is easily effected by breaking up a bulb and planting the scales in a cold frame, where each scale will develop into a perfect bulb. Once the bulbs are established in the open ground, they ought to be left undisturbed; but if it becomes necessary to move them, they should be carefully examined before replanting, for it often happens that small bulbs are formed among the stem roots. Each of these should be carefully preserved and nursed to maturity. Anybody who has had to remove established clumps of *L. auratum* must have been struck by the great depth to which the bulbs have retreated. The presence of tree roots in the soil is no detriment to them; on the contrary, it affords them friendly protection. Of course, these roots impoverish the soil, but that can be met by top-dressing, for it is through the stem roots that nourishment is drawn to the inflorescence. Gardeners accustomed to grow this Lily for a single season's display in the open, or in pots for decoration of the house or conservatory, may consider the process above described both laborious and superfluous; but the Hill Lily of Japan is far too precious to be treated like Hyacinths and other bedding bulbs—brought into flower once and then thrown out on the rubbish-heap. Properly treated, it is one of the most permanent of perennials, and would soon become as common in this country as the Orange and Tiger Lilies if its requirements were more generally understood and provided for.

HERBERT MAXWELL.

(To be continued.)



A FLOWERING TREE OF MORELLO CHERRY TRAINED ON A WALL WITH A NORTH ASPECT. TREES MAY BE PLANTED NOW. (See page 29.)

that the antiseptic properties of peat are some safeguard against fungoid mischief, and I cannot but suspect leaf-mould as a harbour and vehicle of that dire bogey of the Lily-grower, *Botrytis cinerea*. Eight or ten years ago I set some *L. auratum* bulbs in a Rhododendron border of peat and sand on a subsoil of boulder clay. They have never failed to bloom splendidly, rising to a height of 6 feet, the only attention they have received being to cut back the Rhododendrons to give them headroom. They ought, by rights, to have had an annual mulch of a stimulating kind, for *L. auratum*, after it is well established, relishes a generous diet; but these particular

APPLES AND PEARS: FLAVOUR AND PEDIGREE.

IN a recent article under this heading—see page 595, issue December 12, 1914—Mr. Chapman deplores the lack of more detailed records in the history of our popular fruits, and emphasises the fact that breeders must keep flavour before them as their most important aim. I find myself quite in agreement with him, but I think that usually records such as we generally have put before us are of little value. The parents are often discovered after the event, and in many cases can only be termed “putative.” Even where there exists no doubt at all, the value of a single isolated cross between A and B gives but little guidance to the serious cross-breeder. For this information a large number of crosses between two varieties would be of very great interest. Happily, such a series does exist, and to further Mr. Chapman's aims I venture to give some particulars of this extremely valuable experiment.

This work was carried out at the Geneva Experiment Station, New York, by Professors Beach and Hedrick, the crosses having been started in 1901. The special feature of these trials, as is indicated above, was that a considerable number of crosses were made between two varieties, and as many as twenty-nine trees were obtained of Esopus × Ben Davis, and twenty of Ben Davis × Mother. Contrary to accepted ideas, all these trees bore fairly good fruits. The appearance of Crabs, as so often alleged, in beds of seedling Apples is exceedingly doubtful, and a demonstration of their existence would be of great interest.

Let us take the Ben Davis × Mother cross and examine the seedlings. If these were arranged in a series for shape and appearance, placing those resembling either parent at the extremes of the line, graduated forms would be found leading from one to the other. For instance, one Apple resembled Mother almost exactly, while others were intermediate in shape but had the flesh of either one parent or the other. Thus, a Ben Davis fruit *externally* would have the Mother flesh and *vice versa*. All the fruits could quite easily be referred to one parent or the other. No Crabs or unexpected types appeared. The great importance of this will be at once apparent. The various qualities were mixed up as two packs of cards might be mixed, and sometimes the individual qualities were blended as in one fruit where the flesh was intermediate. The way before the Apple-breeder is therefore clear. A large number of one cross must be made, and there will be a good chance of the desired mixture of qualities turning up. There is a large amount of evidence that many, if not most, of our garden fruits will breed nearly true where they are self-fertile, and the results detailed above confirm this expectation. It will be interesting briefly to summarise the inheritance of certain characters as they behaved in these experiments. These cannot yet be regarded as more than helpful suggestions; their elevation to the rank of facts will require further confirmation.

Vigour.—Nearly all hybrids were more vigorous than the parents.

Shape.—This is evidently a complex affair, but the parental forms appear with many grades between.

Colour of Fruit.—Fruits which are yellow and red flushed are heterozygous; fruits where red predominates may be homozygous or heterozygous. Yellow is probably always recessive.

Flesh.—This may resemble either parent or be intermediate.

Acidity.—All the experiments dealt with sub-acid fruits, but the seedlings were mostly on the sweet side.

Season.—This is probably inherited. From crosses of late Apples, only late fruits have been produced. This character, therefore, is probably recessive.

One more hint may be given, and that is that breeders should not give up hope because a tree gives small or indifferent fruit at first. Fruit trees often take some years to attain maturity and a settled line of conduct. A young tree may

in a raw state, they are superb when cooked, either in pies or stewed, and those who have once tasted them served in this way would never tolerate the insipid and anæmic Sweet Cherries that are so frequently used in the kitchen. The Morello or Pie Cherry does not present any serious cultural difficulties. It will thrive in almost any good garden soil, and for that reason is an ideal fruit for the amateur to grow. Trees may be planted at any time from November to March, the soil having been previously well dug and some old mortar or other form of lime added. As this Cherry fruits entirely on the young wood made the previous year, pruning must consist of cutting away that which has borne fruit, retaining as many young shoots as possible. This old wood is best cut away as soon as the fruit has been gathered, thus giving the young growths a better opportunity to become well ripened. Grown against a north wall, the fruit will remain good until early September, providing it is protected from



ONE OF THE MOSSY SAXIFRAGAS: *S. PEDEMONTANA CERVICORNIS*. (See page 31.)

have very hazy ideas of its correct season of ripening for a few years, but with adolescence comes stability. Many must have been the seedlings which have been discarded because they did not at once fulfil the bright hopes of their raisers. Young swans are not so very unlike young geese, and time will allow them to settle the question for us.

The problem of what varieties to breed from is a hard one which cannot be treated here, but it would be as well to remind intending breeders that Cox's Orange is not the only good-flavoured fruit. Many of the older fruits have a flavour all their own, and are worth exploiting.

EDWARD A. BUNYARD, F.L.S.

MORELLO CHERRIES FOR NORTH WALLS.

FOR planting against a wall or close-boarded fence with a north aspect, there are few more useful subjects than the Morello or Pie Cherry, a fruit that is not grown nearly so much as it ought to be. Although the rich red fruits are very acid

birds. Although an ideal fruit for the position named, it may be grown as a bush in the open, or against walls or fences with east or west aspects. Its chief enemy is black fly, which often attacks the young shoots severely, but this can be kept down by prompt syringing with any approved insecticide.

G. B.

HOW TO PRUNE GRAPE VINES.

A FEW weeks ago an amateur cultivator was inspecting some young Vines I had planted last winter. Some of the young rods had grown 20 feet long during the summer months. These were leading rods. There were also two or three side rods, as the intention of the writer is, in due course, to train up three rods from each Vine. The amateur referred to possesses a large vinery, in which, also, Peaches are grown. He put some questions to me respecting the pruning of Vines, and was amazed to learn that the Vines would this winter be cut back, leaving only about

eighteen inches or two feet of the current year's growth. His own Vines had never been hard pruned, consequently they had become overcrowded, and each year the crop of fruit was more and more, but of poor quality. Now, hundreds of amateur cultivators will be busy cleaning and pruning their Vines at this, the beginning of the new year, and there is no time to lose. Very late pruning is undesirable, as there is always a danger of losing much valuable sap when it rises in spring; when the pruning is done early in January, the severed vessels have time to close before the sap begins to flow. In the case of young Vines, especially, it is advisable to paint

EARLY FLOWERING SAXIFRAGES.

SAXIFRAGES or Rockfoils comprise a wide range of beautiful and interesting plants, most of which are of the easiest cultivation. One has only to make a few comparisons to realise the great diversity of form that exists among Saxifrages. For instance, the genus includes dwarf mountain species like *Saxifraga aizoides*, native of the mountain rills of Scotland, and *S. cordifolia*, the Giant Rockfoil of Siberia. Other contrasts

between *S. rocheliana* and *S. sancta*. Like the last named, which is also a desirable early Saxifrage, it is classed among the Spiny Saxifrages. It is not likely to become scarce in cultivation, for it grows with great freedom and appears to be quite capable of taking care of itself. It shows preference for a limestone soil and is well suited for the sunny side of the rock garden. The white variety, *alba*, is worthy of special note.

S. Boydii.—This rather scarce plant is said to be a hybrid from *S. burseriana* and *S. aretioides*. The round yellow flowers rise an inch or so above the cushion-like growths. The variety *alba* has pure white flowers and is greatly cherished by all lovers of alpine plants. Faldonside is a comparatively new variety, with clear yellow flowers of good form. Flowering season, April.

S. burseriana.—No Saxifrage has created so much interest in recent years as this. It is one of the loveliest of the early flowering alpine, and bears a profusion of snow white flowers arising from very spiny tufts. There are many varieties, of which *Gloria* is the best. There is, however, great variation in the species, some varieties having much larger and better formed flowers than others. It must be given a dry position free from any trace of stagnant moisture. It may be grown in full sun or partial shade, the best position being a much-discussed point.

S. Grisebachii.—A very distinct introduction from the Balkans. It sends up bright crimson flower-spikes from small rosettes of foliage. So far it has proved difficult to cultivate, at least in many localities. It must be given a dry position, and is best when grown upon a small cone of stones. It is one of the earliest to flower, and as a rule commences to push up its bright flowering growth in February and lasts until April.

S. Haagei.—A hybrid of garden origin having deep yellow flowers. It forms a companion plant to the paler-coloured *S. apiculata*, both flowering together and requiring similar soil and position.

S. ligulata (Nepaul Rockfoil).—If this species were a little hardier it would prove one of the most valuable of the large Rockfoil or Megasea section. It produces branching panicles of rosy flowers in April. In a mild spring it is a plant of rare beauty. It should be given a sheltered position on a warm sandy soil facing south.

S. longifolia (Pyrenean Rockfoil).—Rightly termed the "Queen of the Saxifrages," this species is one of rare and refined beauty. It should be grown in crevices between vertical rocks, so that water cannot collect in the hollow rosettes. When in bloom it is most attractive, forming a long pyramidal truss of white flowers usually in June and sometimes later. Plants collected from the mountains are often slow to produce their trusses of bloom, as they frequently remain stationary for a year or two and then give a moderate account of themselves. Seedlings, however, vary in their early growth, some running away to a precocious flowering, and others flowering after six, seven or even eight years' growth; but the stronger the



A FINE PLANT OF THE PYRENEAN ROCKFOIL (*SAXIFRAGA LONGIFOLIA MAGNIFICA*).

the cut ends forthwith with painter's knotting; this sets hard immediately and closes the pores or sap channels in the canes. Vines newly planted should be cut back level with the wall plate—the point where the glass begins. Vines that have been planted one year should be cut back to about twenty inches of the base of the current year's growth; the leading rods of all Vines must also be treated in this way. Laterals growing from spurs at the sides of the rods are best pruned back to two buds. When the latter break in spring, the cultivator will soon be able to determine which one will bear the best bunch of Grapes; then the other shoot can be rubbed off. Even if there are no bunches on either shoot, the best can be retained, as the necessary disbudding must be done before the young shoots are 2 inches long.

Forming Spurs on Young Vines.—Of course, the side spurs could be measured out exactly; but they can be formed almost as desired. The best average distance apart is 18 inches. Twenty inches will do, or even a little more. The spurs should be formed alternately on both sides of the rod; then as the young shoots grow from them they will dovetail in and so cover the roof space evenly with good foliage. Use a very sharp knife and do not cut too close to the bud left.

G. G. B.

may readily be found among *S. sancta*, a dense tufted species from Mount Athos; the pyramidal *S. Cotyledon* of the Alps; *S. peltata*, the Umbrella Plant of California, one of the largest species of the genus; *S. sarmentosa*, known by a variety of names, including Mother of Thousands, Aaron's Beard, Creeping Sailor and Wandering Jew, often seen in sitting-rooms or as basket plants in cottage porches; and last, but not least, the ever-popular London Pride (*S. umbrosa*), which in some parts of the country still retains the name of None So Pretty. So great is the variety that one might have a garden of Saxifrages alone, and even then have flowers for the greater part of the year. The earliest flowering Saxifrages are for the most part true alpine, and it is to these that special attention is now drawn, for they are indispensable to the rock garden in spring.

Saxifraga apiculata.—This is well known to be one of the earliest to flower, and even when not in flower its dense foliage, carpeting bare ground and clothing rocks and banks in summer and winter, makes it in every way a desirable plant for the rock garden. The flowers are pale yellow and borne in the greatest profusion from the early days of March till the end of April. It occurs wild in the Pyrenees, but is thought to be a hybrid

rosette of leaves the better will be the inflorescence. The variety *magnifica* forms an imposing rosette, often more than a foot in diameter. The plant illustrated is believed to be about fifteen years old. As usual, the plant died after flowering and producing seeds.

S. marginata.—A very beautiful Italian species flowering from March till May. It is a close-growing, tufted species with pure white flowers. It is the parent of a number of early flowering hybrids, all of which, like the species, should be grown in a gritty soil on a rocky sheltered ledge, where they receive the full benefit of the morning sun. Propagation is effected by division in spring after flowering, or by cuttings taken in the summer.

S. oppositifolia.—A very beautiful and distinct species, and certainly not difficult to grow. It is found growing wild on the mountains of North Wales and in Scotland. It will grow in either shady or sunny positions, but it flowers far better when grown in full sun. The flowering season is March and April. The type has purplish rose flowers, but the varieties *coccinea* and *splendens* are both richer in colour; *alba* is a fine white variety. The species is of creeping habit and requires a similar soil to that recommended for *S. apiculata*.

S. pedemontana cervicornis.—Few of the Mossy Saxifrages are so compact in growth and none so pretty when in flower. It is truly alpine, and is found in the mountains of Sardinia and Corsica, where it ascends to elevations ranging from 4,800 feet to 7,500 feet. It is perfectly hardy and is not affected by cold, but rather by the mildness of our winters, which sometimes excites it into untimely growth. In winter the leaves of the dense rosettes overlap one another like the slates of a roof. The flowers are loosely arranged and borne in May. In lowland gardens they rise 4 inches or 5 inches from the ground, and this is about twice the height attained in their mountain homes.

S. Wallacei.—One of the most robust and profusely flowered species or hybrids of the Mossy section. It is so easily grown that it is used extensively as an edging in the London parks. It prefers a light soil and fairly sunny position, and produces masses of white flowers in April and May.

Although the majority of Rock-foils bloom in spring, there are others quite indispensable for later flowering. The summer-flowering *S. Cotyledon*, with robust, erect sprays from 1 foot to 4 feet long, is worthy of special mention. Of the very late flowering species, *S. Fortunei* and *S. cortusoides* will prolong the supply of bloom from August till October if given partially shaded positions and a gritty, but at the same time fairly rich and well-drained soil. The family is rich in interesting and beautiful species, the cultivation of most being comparatively easy, though a few of the rarer kinds present some difficulties. Just now the vivid green tufts of those belonging to the Mossy section are very attractive in the rock garden.

C. Q.

THE SNAPDRAGONS AND THEIR CULTURE.

ALTHOUGH the Snapdragons, as we are pleased to call the flowers that the botanists class as *Antirrhinums*, have been known in our gardens since the days when Gerard wrote his famous herbal, it is only during recent years that any great improvements in colour, habit and form have been effected. In the early days already referred to there were, according to available data, four varieties, viz., *album*, *purpureum*, *variegatum* and *luteum*, the colours of which are well described by their names. These were undoubtedly the forerunners of the modern race that is now so highly appreciated in our gardens, and all of which have descended from the species *Antirrhinum majus*.

Fortunately, the cultivation of the ordinary Snapdragons does not call for any special skill or treatment on the part of the gardener. I use the word "fortunately" advisedly, because

plant, and in a wild or semi-wild state is usually allowed to grow as such, the gardener generally finds it more convenient to treat it as an annual, or at the most a biennial, for the purpose of filling beds or planting in borders. It is such a good-natured plant that it readily lends itself to this treatment, and the modern varieties have been so carefully selected that most of them can be relied upon to come true from seed.

There are two methods of raising seedlings; one is adopted where the plants are to be treated as annuals, and the other if their existence is to extend well into the second year, though either would be applicable were it desired to allow the plants to remain as perennials. To treat them as annuals—i.e., to raise the plants from seed, allow them to flower, and discard them all in one year—it is necessary to sow the seed early in the year, and the latter part of January or the early days of February is usually selected as the most appropriate time. By sowing the seed so early a long period of growth is secured, a feature that is necessary with these plants. The actual sowing of the seed and raising of the seedlings



SAXIFRAGA GRISEBACHII, A RARE ROCKFOIL FROM THE BALKANS.

these flowers are so useful for so many purposes in our schemes of summer and autumn effects that they should find a home in every garden, no matter whether it be the strip of the suburban villa or the demesne of the mansion. For filling beds or borders, for naturalising in the wild garden, the crevices of dry walls or inaccessible rocks, the Snapdragons are admirably adapted, and in the latter positions they will usually sow and reproduce themselves freely when given a good start. In the gardens at Hopetoun House, Linlithgow, whole borders are devoted to these flowers, large masses of one colour being planted, and a wonderful colour effect thus obtained. Although the Snapdragon is really a perennial

present no serious difficulty. A quite cool greenhouse or frame is essential, and the boxes or pans in which the seed is to be sown must be well drained, as Snapdragons are greatly averse to excessive moisture. The soil for filling the boxes ought to consist of good loam two parts, coarse grit one part, with a little leaf-soil and some old mortar added. A similar mixture, except that a little old, well-decayed manure should be substituted for the leaf-soil, may be utilised in which to transplant the seedlings when they are large enough to be conveniently handled. Thin sowing of the seed, early transplantation of the seedlings, and, above all, cool, airy treatment throughout the whole of their career, are the passports to success

in the raising of Snapdragons from seed early in the year. If kept near the glass and freely ventilated, as advised, the young plants should be sturdy and branching by the end of May, at which time they may be planted in their flowering quarters.

If we desire to treat Snapdragons as biennials, *i.e.*, raise them one year to flower the next, the seed may be sown in June in the open garden, and the seedlings subsequently transplanted to where they are to flower. Thin sowing and prompt transplantation are essential. So far as soil is concerned, these delightful flowers are not at all fastidious, but it must not be heavy clay that is water-logged. Thorough drainage, and a fair depth of loam to which has been added a goodly proportion of well-decayed manure, will give large spikes of glorious flowers. But, on the other hand, dry, starved soil will produce bushy plants that never seem to tire of flowering, and for this reason the Snapdragon is an excellent plant for growing in the warm, dry borders that are usually found surrounding the dwelling-house, for dry walls, or for rockwork where there is very little soil. In such situations it is best to sow the seed in June where the plants are to grow and flower, and allow them to remain as perennials.

Of modern varieties there are a great many, and nearly every seedsman has his own speciality. The beautiful art shades of pink, gold, terra-cotta and bronze have created a great deal of interest in recent years, and are all well worth growing in masses in beds or borders.

W. H.

SEASONABLE NOTES ON CHRYSANTHEMUMS.

THE amateur cultivator wishes to grow varieties that are of high merit, both as regards quality of flower as well as form of plant, and fairly easy to manage in all stages of development from the cutting to the flowering stage. The following varieties are sure to give every satisfaction.

Twenty-Four Japanese for Large Blooms and Groups.—Miss A. E. Roope, golden yellow; Queen Mary, pure white; Mrs. G. Drabble, white; His Majesty, rich velvety crimson; William Turner, white; H. E. Couverse, reddish bronze, with a gold reverse; Kara Dow, chestnut bronze, with a gold reverse; Rosamund, primrose, shaded old rose; F. S. Valis, lemon yellow; Bob Pulling, rich yellow; Frances Jolliffe, straw colour, streaked rose pink; Marie Loomes, terra-cotta red; Mrs. James Gibson, mauve pink on white ground; Mrs. E. A. Tickle, mauve pink; Mrs. T. Stevenson, rich yellow, sometimes tinted buff; Master James, chestnut; Mrs. A. T. Miller, pure white; Mrs. J. Lloyd Wigg, yellow, shaded buff; Maud Lousada, rosy mauve on white ground; Amy Poulton, rich pink; Miss Elsie Davis, rosy mauve; Mrs. K. Luxford, pure white; Alice Lemon, mauve pink; and Fred Green, rich purple. The height of these varies from 3 feet to 5 feet.

Twelve Varieties for Decoration.—The following varieties are splendid for decorative purposes in pots or as cut flowers, and are available from October to Christmas: Mrs. George Rundle, white; Source d'Or, orange and gold; Crimson Source d'Or; Caprice du Printemps, rosy pink; Mrs. Roots, pure white; Embleme Poitevine, yellow; Mme. R. Oberthur, white; Mrs. J. Thompson, white; Nagoya, yellow; Dr. Enguehard

pink; Baldock's Crimson; and David Ingamells, yellow. The varieties Mme. R. Oberthur, Source d'Or, David Ingamells, Mrs. Roots, Caprice du Printemps and Mrs. George Rundle may be planted out in the summer, lifted either before or after the buds are well set, and repotted.

Twelve Single-Flowered Varieties.—Mensa, pure white; Ceddie Mason, chestnut crimson; Mary Richardson, reddish salmon; Altrincham Yellow; Mrs. Tresham Gilbey, yellow; Sylvia Slade, rosy garnet, broad white ring round the disc; Metta, deep magenta; Kitty Bourne, deep yellow; Florrie King, pink; Roupell Beauty, dark plum colour; Joan Edwards, pink; and Charles Kingsley, rich yellow. The varieties Mary Richardson, Ceddie Mason, Joan Edwards and Altrincham Yellow are very attractive grown as sprays, but all may be disbudded. These will afford a supply of blooms from mid-October till December. I will give a list of varieties for the garden borders in a later issue.

AVON.

A WIGTOWNSHIRE AMATEUR HORTICULTURIST.

AMONG ardent cultivators of their picturesque gardens in South-Western Scotland, none is more entirely worthy of admiration than my nearest neighbour, Mr. John Hill, mechanic, tender lyrist and earnest horticulturist, residing within the environment of the Manse in the parish of Kirkmaiden. During the summer and autumn months his garden, which, though not extensive, is intensely attractive by reason of its prevailing brightness and fragrance, is greatly admired by all visitors (and they are many) to this peninsular region. Mr. Hill, who is, as I have indicated, an assiduous gardener, though he has not so much leisure as most of us for this peaceful, eminently healthful and refining occupation, may be described as a highly successful cultivator of Irises, Rhododendrons, Azaleas, Hollyhocks, Sweet Peas, Roses and Oriental Lilies. The soil in which he grows them is a fertile loam.

In many instances the herbaceous flowers appear to succeed in his garden most admirably when they are left by their proud possessor, severely alone. Such beautiful and accommodating Lilliums, for example, as szovitzianum, candidum and chalcedonicum (the brilliant Scarlet Martagon) are not seldom most enduring and luxuriant in their blossoming when they are utterly undisturbed. They are, in my experience, in many instances as sensitive as human beings, possessing delicate nervous and mental organisations, especially at the roots, where some of them will hardly tolerate division at all. Many of the most precious herbaceous plants in this unique garden have flowered profusely in the same soil for the last ten years. This horticultural Art "itself is Nature," as Shakespeare sings.

The climbing Roses, especially those of wichuriana origin, are commandingly profuse and prodigal in their affluence of bloom. Such Hybrid Perpetuals and Hybrid Teas as Victor Hugo, Duke of Edinburgh, Frau Karl Druschki, Viscountess Folkestone, Margaret Dickson and the highly distinctive Lyon Rose are usually among the most effective and fascinating varieties of the Queen of Flowers in Mr. Hill's garden, which (perhaps the Editor will permit me to add) has been greatly admired by such enthusiastic amateur

horticulturists as Mrs. McDouall of Logan and the Earl and Countess of Stair. Among the Indian, Levantine and Japanese Lilies that have been successfully cultivated by Mr. Hill are the Himalayan *Lilium giganteum*, *L. auratum*, *L. tigrinum*, *L. speciosum* and *L. chalcedonicum*. I have great pleasure in thus testifying in the columns of THE GARDEN to his unquestionable merits as a floral cultivator; for Mr. Hill is one of those whose hearts and lives seem echoes of those glorious lines of Wordsworth:

"Thanks to that human heart by which we live,
Thanks to its tenderness, its joys, its fears,
To me the meanest flower that blows can give
Thoughts that do often lie too deep for tears."

DAVID R. WILLIAMSON.

NEW AND RARE PLANTS.

FIRST-CLASS CERTIFICATE.

Cypripedium Grand Duke Nicholas (*C. Actæus* var. *Miss F. H. Camm* × *C. leeanum* Carona).—In the handsome, well-developed dorsal sepal, which is broadly margined white, there is a considerable leaning to the best of the *leeanum* class, than which few present bolder proportions generally. The sepals, petals and pouch are of greenish yellow tone. From G. F. Moore, Esq., Bourton-on-the-Water.

AWARDS OF MERIT.

Cypripedium Pyramus Chardwar Ideal (*C. Miss Mostyn* × *C. Hera Euryades*).—In this the pronounced white dorsal sepal is heavily blotched chocolate, sepals and petals rich chestnut, and pouch dark brown. Exhibited by G. F. Moore, Esq., Chardwar, Bourton-on-the-Water.

Cypripedium arthurianum Langley Variety (*C. fairieanum* × *C. Harefield Hall*).—This fine hybrid embraces some of the characteristics of both parents, the dorsal sepal partaking of the last, and the sepals and petals of the first named. It is a well-marked flower. From Messrs. Flory and Black, Langley, Slough.

Odontoglossum eximeum Xanthotes Gatton Park Variety.—A splendidly flowered raceme of this novelty was shown. It is a flower of singular whiteness and purity, the sepals and petals touched with a faint yellow shade and with a yellow crest. From Sir Jeremiah Colman, Reigate.

Cymbidium coningsbryanum Brockhurst Variety (*C. grandiflorum* × *C. insigne superbum*).—A well-developed, freely flowered specimen of this hybrid was on view. The spike is erect, arching above, and bearing many handsome flowers. The latter are of almost shell pink hue, the lip copiously spotted crimson. Exhibited by F. J. Hanbury, Esq., Brockhurst, East Grinstead.

Pyracantha crenulata.—The specific name is not particularly appropriate, some leaves being devoid of the crenulated margin, while others are well marked. Of this Veitchian introduction from Western China, a 12-feet-high, pyramidally inclined specimen having a basal diameter of 6 feet was shown. Bushy at the base and tapering upwards, it was abundantly fruited throughout the somewhat pendent branches of 2 feet or so in length, loaded with smallish fruits coloured a reddish-scarlet. The 2-inch to 3-inch long leaves are half an inch broad, linear obtuse, shining green above and greyish beneath. Shown by the Hon. Vicary Gibbs, Aldenham, Elstree.

The whole of the above were shown before the Royal Horticultural Society on the 5th inst., when the awards were made.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Early Pot Vines.—The shoots on Vines which were started early in November should now be finally thinned. Pinch the laterals at the second leaf beyond the bunch, and keep them from touching the glass by tying them carefully to the trellis. The roots may be given a little stimulant now in the form of liquid manure and soot-water. Keep a moist atmosphere by damping down the walls and paths in the house, more or less if the weather is dull or fine. A minimum temperature of 65° will now be suitable. Admit a little air whenever the weather is fine, but close the ventilators before 2 p.m.

Early Permanent Vines.—The weather has been very favourable for forcing, as little fire-heat has been necessary to keep up the temperatures. Rub off all useless growth, but defer the final thinning of the shoots till it can be seen which are the most promising. Before the Vines come into flower, examine the borders to see if they require water.

Plants Under Glass.

Schizanthuses.—The plants which were raised from seed sown in the autumn must be kept growing in a cool house with plenty of light. Water carefully, and admit plenty of air to the plants whenever the weather is suitable. Use fire-heat sparingly at all times.

Mignonette.—Another sowing of this delightful greenhouse plant may be made now in 2½-inch pots. The autumn-sown plants must be kept growing on a shelf near to the glass in a cool house. When the flowers begin to develop, afford the roots some stimulant in the form of liquid manure and soot-water.

Cinerarias.—Do not let Cinerarias become too dry at the roots, and when they have become well rooted in their final pots give them plenty of stimulants. An occasional light fumigating will ward off attacks of aphids. A house or pit which is frost-proof will suit this plant well.

Chrysanthemums.—Remove the cuttings to a shelf in a cool house when rooted, but do not expose them to cold draughts. Keep old stools which are required for stock in a light, cool house to encourage sturdy growth.

The Flower Garden.

Bedding Plants.—Attention must now be given to the various plants which were rooted from cuttings in the autumn. Those which were rooted in boxes or pans, such as Pelargoniums, Fuchsias, Lantanas, Salvias, Iresines and Ageratums, may be potted into 3-inch pots and placed on a stage in a fruit-house which has just been started. Cuttings of various bedding plants which are available will readily strike now if placed on a hot-bed in the propagating-case. *Salvia Glory of Zurich* may be raised from seeds sown now. I find the plants raised in this way are quite equal to those raised from cuttings in the autumn. *Marguerite Mrs. F. Sander* is a most useful bedding plant, and good plants may be grown from cuttings inserted now. They will require to be stopped two or three times to encourage a dwarf, bushy habit.

Sowing Seeds.—Towards the end of the month seeds may be sown of the following: *Wigandia*, *Canna*, *Begonia* (both tuberous and fibrous rooted), *Delphinium*, *Hollyhock*, *Verbena*, *Antirrhinum* and *Centaurea*. Sow the seed in fine sandy soil in well-drained pans or boxes, and place them in a brisk heat till the seedlings are through the soil.

The Rock Garden.—After spells of severe frost it is necessary to carefully examine the smaller plants, pressing the soil about the roots where it has been lifted by the frost. In some cases it may be necessary to place a little fresh soil around the plants for protection. A great many plants will be needed to furnish the rock garden during the coming season, some of which may be raised from seed sown during the next few weeks.

The Hardy Fruit Garden.

Morello Cherries.—The pruning and training of these must be no longer delayed. The Morello

Cherry lends itself admirably to training, and makes a very handsome tree when the work is well done. Remove branches which are becoming bare at the base, so that the trees may be well furnished with young fruiting wood, and guard against overcrowding.

Renovating Old Trees.—Much may be done to help old trees to retain their vigour during the winter months. It is not always prudent to disturb the roots of very old trees to any great extent, and, when this is so, an effort should be made to encourage fresh roots on the surface. A portion of the old surface soil should be removed, exposing the roots as much as possible, and replace with fresh loam, old brick rubble and wood-ashes.

The Kitchen Garden.

Potatoes.—The tubers which are intended for planting in pits or frames should be placed on end in boxes to sprout. In the meantime the pit should be prepared. A hot-bed of leaves and stable litter must be made on which to place the soil. This will be all the better if placed in the pit a week or ten days before planting the tubers.

Lettuce.—Plants in frames must be given plenty of air during mild weather, and decayed leaves must be removed regularly. Make a sowing of a suitable variety for frame culture in boxes, and place them in a moderately warm house.

Carrots.—Make a sowing of these on a hot-bed in a frame. A depth of 6 inches or 7 inches of rich soil must be placed on the hot-bed and made fairly firm. Level the surface with a rake, sow the seed broadcast, and cover with fine soil.

Radishes.—To keep up a regular supply, make small sowings every week or ten days. Radishes require a fairly rich soil and plenty of water when growing. They may also be sown with the Carrots.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

Plants Under Glass.

Mignonette.—The plants which were raised from seed sown during August or September and which have been growing in a cool house or pit will be ready for moving into their flowering pots. For potting use a rich compost containing a fair quantity of some reliable fertiliser.

Sweet Peas intended for flowering indoors during April and May should now be ready to plant in their flowering quarters. Plenty of root-room is necessary, but too much artificial heat must not be used. Flowers of better quality on long stems result from a judicious disbudding and regulation of the plants as they grow.

Gloxinias.—A batch of these may be started in the stove for early flowering, placing the tubers in light soil in pans or boxes. When ready for potting, use the loam in a rather rough state, and include a large quantity of leaf-mould, peat and coarse silver sand. Young plants that will flower in July and August are to be had by sowing seed this month.

Violets.—It is important that Violets be ventilated freely during mild weather. Even during periods of frost the frames should be opened when the temperature exceeds 32° in the sun, although this may only be for one or two hours in the middle of the day. It will be readily seen how essential it is for a Violet frame to have a south aspect, besides having a good pitch.

The Hardy Fruit Garden.

Red and White Currants.—As Red and White Currants produce their fruit on the old wood, cut back all last year's growths to about three eyes, leaving young wood only where it is needed for the formation of the bush.

Black Currants.—These do not require so much pruning except the removal of old and weakened branches. All the young wood possible should be encouraged. If big-bud is present, the bushes should be constantly looked over and all abnormally swollen buds picked off and burnt.

Propagation.—Cuttings of the foregoing are easily rooted, and may be put in rows in some sheltered border. The lower buds should be removed to prevent suckers appearing, except in the case of Black Currants.

Root-Pruning.—Very marked improvement in the crops of various fruit trees is brought about by root-pruning. The trees marked for this attention should be dealt with before any signs of growth are evident. Try to encourage surface roots by adding fresh soil.

The Fruit-Room.—Examine the fruits frequently and remove any showing signs of decay. If this is neglected, many sound fruits coming in contact with the decayed ones would quickly become infected. The fruits must be kept safe from frost and a little fresh air admitted when the weather is fine.

The Kitchen Garden.

French Beans.—Make fortnightly sowings in 8-inch and 10-inch pots where a supply of this vegetable has to be kept up. A temperature of 55° to 60° is necessary. Red spider must be prevented, if possible, from getting a footing by frequent syringing. *Canadian Wonder* and *Osborne's Forcing* are both reliable varieties for indoor use.

Vegetable Marrows.—Seed sown now in heat will ensure a supply during March and onwards if a heated frame or pit is available. Hand fertilisation of the flowers is necessary if this early crop is to be a success.

Cauliflower.—To make a succession to the autumn-sown plants, sow now some early sort, such as *Early Erfurt*. The seedlings are very liable to damp off, and must be watered with great care. When large enough to handle, prick out into a cold frame.

Lettuces.—Both *Cos* and *Cabbage* varieties are welcomed early in spring. The young leaves are even useful some time before the plants commence to turn in. Make a sowing now in boxes and protect from slugs.

Mushrooms.—Beds showing signs of exhaustion, if not too far gone, may sometimes be revived by an application of tepid water to which some salt has been added. When damping the Mushroom-house, a spraying of the walls and pathway will be sufficient. A temperature of 55° to 60° must not be exceeded.

The Flower Garden.

Border Carnations.—The best results are undoubtedly obtained by wintering these in frames; but where plants have been put in their permanent positions they sometimes get loosened by frost, and should be replaced firmly when milder weather returns.

Bedding Geraniums.—As damp is the worst enemy of these during the winter, they had better be freed from decayed leaves and freely ventilated on all favourable occasions.

Standard Roses.—When tied to supports, it should be seen that all fastenings and stakes are in order, as gales might otherwise snap the stems. When fastenings have become tight owing to expansion of the stock, they should be retied to avoid strangulation. It is advisable to slightly shorten any straggling growths; these would in any case have to be removed later at pruning-time. By removing them there is less risk of breakage.

Fruit Under Glass.

Pot Trees.—To obtain well-coloured and ripe fruit in July and August, a number of trees should be selected and started gently in some vinery or Peach-house if an orchard-house is not available. Apples, Pears and Plums succeed admirably as pot trees. The trees potted during October and November have had full exposure outdoors, except the pots which have been plunged in leaves to prevent them being cracked by frost. The trees should be looked over for insect pests, and if any woolly aphid or blight is present, apply methylated spirit to the affected parts. The drainage of each pot must be examined. The trees may be syringed occasionally on bright days, and, when the flowers open, a thinning with scissors should take place; this greatly assists the remaining flowers to set.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockertie, N.B.

THE CULTIVATION OF SWEET CORN IN ENGLAND.

IN the modern demand for a wider range of vegetables a number that were at one time practically obsolete have been resuscitated, and have had attention from those whose duty it is to grow vegetables for home consumption. In addition, a few new kinds have also been tried, and foremost among these are the edible forms of the common Indian Corn or Maize. Unfortunately, these have not up to the present been very favourably received in this country, a fact that is perhaps due to a chain of circumstances such as few vegetables have encountered at the outset of their career.

Growers have, of course, for many years cultivated the ornamental varieties of Maize for decorative purposes, and it sufficed if seeds were sown under glass in March and grown on for planting out at the end of May or early in June. But for edible purposes the seeds must be sown earlier so that strong plants of large size are ready for planting outdoors at the period named, otherwise our summers are too short for the plants to produce a good crop of cobs. This late sowing, together with gathering the cobs at the wrong stage and improper cooking, have done much towards discouraging the pioneers in the cultivation of this vegetable.

It has already been stated that seeds must be sown early for the purpose of securing large plants by early June, and the first week in February is a good time to sow them. A hot-bed frame is an ideal place, but, failing this, recourse must be had to the warm greenhouse. A system that I adopted some years ago, when Sweet Corn was first grown as a vegetable in this country, was to fill some 3-inch pots with good rich potting soil and sow one seed in each pot, these subsequently being stood either in the hot-bed frame or on a shelf near the glass in a warm greenhouse. The young plants were not long in appearing, and growth was rapid, but care was always taken to ventilate the frame or house whenever the weather outside was at all genial; this, together with keeping the young plants near the glass, induced firm, sturdy growth, and so laid the foundation on which future success was based. In the course of three or four weeks from the time the seedlings appeared they had filled the pots with roots, and were then moved into pots 5 inches or 6 inches in diameter, the latter for preference. As Maize plants at all stages of their career are gross feeders, it is necessary that the soil used at this repotting be good; turfy loam three parts and well-decayed farmyard or stable manure one part I found answered very well, and this was made moderately firm.

After this repotting the plants were taken back to the warm frame or greenhouse, but when they had established themselves in the new pots ventilation was given more freely, the more favourable outside conditions allowing of this being done, until, by the second week in May, the plants were being given open-air treatment by day and only slight protection at night. This early sowing of the seeds, and the subsequent growing on and proper hardening of the plants without a check, is the most important item in the cultivation of Sweet Corn. Without sturdy plants 1 foot to 18 inches high, according to the variety, for planting outdoors

the first week in June, it is useless to attempt to get cobs of good quality.

During the time the plants are being raised under glass the bed outdoors must be prepared, and the earlier this is done the better. Almost any good garden soil will grow good plants, but it must be well and deeply dug, and should have at least a 3-inch-thick dressing of partially decayed manure mixed with it at the time the digging is done; if the soil can be dug from 18 inches to 2 feet deep, so much the better. If this is done early in the spring it will have become nicely settled and in good condition for planting by the time it is required. A position sheltered from strong winds should be selected if possible. The plants should be put out in rows 3 feet 6 inches to 4 feet apart, the former for dwarf-growing varieties and the latter for those of more majestic stature, and a distance of 2 feet must be allowed between the plants in the rows. When planting, care should be taken to keep the ball of soil and roots intact, as the one thing to avoid above all others is a check to the growth of the plants. If well watered at the time of planting, the plants will need but little subsequent attention, except that a mulching of short manure spread over the roots during the hot days of July and August will be of considerable benefit. Some of the leading seedsmen in this country now list several varieties that are specially suitable for our climate.

As already stated, the gathering of the cobs at the wrong time, together with improper cooking, have done much towards bringing the Sweet Corn into disfavour; indeed, unless close attention is given to these apparently trivial items, a whole season's labour will be lost. The corn or seeds ought not to be allowed to turn mealy inside before they are gathered; a good test is to press one or two with the thumb-nail, and if milky inside they are in a proper condition for gathering. Cooking is of equal importance. The cobs should be boiled in their husks for about twenty minutes to half an hour; if boiled longer, the corn becomes hard and unpalatable.

H.

A SELF-SOWN WOOD.

IT is often cited as a matter for wonder, or at least some degree of surprise, that when a wood of one kind of tree is cut down, quite other kinds of trees soon appear as seedlings. But country folk, who are familiar with the ways of woodland, know that such changes are only in the ordinary course of events. The ground under trees is full of various Nuts and seeds, brought by birds and squirrels as well as wind-blown. While it is covered with woody growth and there is but little light and sun-warmth reaching the earth, the state of things is not favourable to development, so that the seed, after lying dormant for some time, either decays or germinates feebly and throws up a weak, leggy growth that is of no account. Many seeds, after lying for some time, perish in this way, but some retain the possibility of vitality for a number of years, and meanwhile the supply is continually renewed. As soon as the wood is cut down, the conditions at the earth surface are changed. The sun warms the ground and the combined action of heat, light and moisture stimulates the seeds. The same occurs with the lower plants in copses of under-wood. These copses are usually allowed to grow

for seven years. For the last three years before cutting, when the leafy branches meet and mingle overhead, there is hardly any wild growth below. One pushes through with some difficulty, finding only the carpet of dead leaves under foot. But as soon as the copse is cut, the seed stored in the ground comes to life. By the second year there are masses of Primroses and Campions, and, in some places, a perfect turf of seedling Foxgloves, while the bulbs of the Bluebells and the creeping roots of the Wood Anemones take heart again and flower and flourish.

A small wood of ten acres adjoins my garden. Formerly it was a wood of Scotch Pine of some seventy years' growth. Under the close-growing trees the ground was bare but for a scant sprinkling of Whortleberry, Heath and Bracken at the lighter edges. Thirty-five years ago the Pines were cut and the ground left bare. Soon it became covered with Heath, Ling and short Bracken, and, on one side especially, a stronger growth of Whortleberry. Then, year by year, tree seedlings of many kinds came up in considerable quantity, so that there was not a yard of ground without one or more. This went on for some nine or ten years before the land came into my hands, and by then the seedlings were, in many places, so thick that it was impossible to get between them. From that time onwards the problem was how best to thin them, also to cut out a few paths on the easiest lines to serve the future laying out of the ground where house and garden were to be.

What is most remarkable about these few acres of seedling growth is the large number of trees and shrubs of native species that are present. The larger trees are represented by Beech, Oak, Ash, Spanish Chestnut, Lime, Birch and Scotch Fir. I believe I may say that every British conifer and evergreen is among them, except Box; for, besides the seedlings that one would expect from the original Pines, there is a spontaneous growth of Spruce, Larch, Yew and Juniper, also Holly in abundance. Ivy and Honeysuckle, both of woody growth, though hardly classed as trees, are in plenty; the latter in large quantity—in many places covering the floor of the wood with a treacherous knee-high tangle that makes walking difficult. Of the Apple tribe there are no fewer than six, namely, Mountain Ash, White Beam, wild Cherry, Crab, Whitethorn and Blackthorn. There are a few saplings of Ash and Sycamore, and though it is at the top of a dry hill, several plants of Willow, evidently from wind-blowing of the feathered seeds. There are also Hazel and Elder, Broom and Gorse. Of less common shrubs, though fairly frequent in the neighbourhood, there is one example of Alder Buckthorn (*Rhamnus Frangula*), a bush that always arrests me with a sense of interest. I cannot say why, as it is not conspicuous or specially beautiful; perhaps it is because one only comes upon it now and then, and because it is one of the woodland things that no one seems to know the name of. There is one example in a wood not far off that has assumed the shape of a tree, with a single tall trunk about five inches thick.

Those mentioned account for twenty-five of our native trees and hard-wooded shrubs, not counting Ivy and Honeysuckle. I can only think of fourteen others that are not represented. These are Elm, Wych Elm, Poplar, Field Maple, Alder, Horse Chestnut, Walnut and Hornbeam among trees; and of shrubs, Dogwood, *Viburnum Opulus* and *V. Lantana*, common Buckthorn, Spindle-tree and Privet.

GERTRUDE JEKYLL.

THE UPKEEP OF GARDEN HEDGES.

TO the owner of an established garden there is no subject that is more perplexing than the proper upkeep of the boundary hedges. These hedges are usually required for protection from strong, cold winds, and in some instances from the inroads of cattle, and nothing adds more to the attractiveness of a garden than hedges that are properly cared for. Hedges of this kind naturally fall into two sections, viz., those that are newly planted and those which have been long established.

The question of cutting back young hedges at planting-time is one that is little understood, and considerable harm has not infrequently been done through ignorance. Whitethorn should be cut back severely, but Holly, Yew, Box, Beech and Arbor-vitæ are best left alone for at least one year, and, unless growth is very active, two years may well elapse before any pruning is done. After the first year the treatment of a young Whitethorn hedge will depend to some extent on the height and width that it is desired it should attain. If a hedge only a few feet high is required, the young plants may be cut back rather severely each year, leaving from 1 foot to 18 inches of fresh growth, according to the vigour and density of the plants, until the full height is attained. Where a higher hedge is desired, from 18 inches to 2 feet may be left, always, however, bearing fully in mind the natural density or thinness of the Thorn plants. The object is to get a good base at the outset; if a hedge is allowed to run up too quickly, it is almost certain to become thin at the bottom, and it will be a difficult matter to subsequently induce it to thicken. Holly, Yew and Box, in their initial stages, will not need the top growths cut, unless, as is very unlikely, they are growing rapidly. The side shoots must be shortened; the general contour of the finished hedge must be borne in mind and worked for as far as possible. If any leading or top shoots are growing away beyond the bulk, they should be cut back, and after a few years, when the hedge is nearly high enough, it will be necessary to curtail the whole. The treatment of the top must, however, rest mainly with the condition of the hedge from year to year. If it appears to be growing too fast and not dense enough, it will be wise to cut down the top or leading growths. Arbor-vitæ and Beech need both top and sides curtailed somewhat in the young stages, as they are not naturally so dense-growing as the Holly, Yew and Box. This shortening is best done with secateurs, so that each shoot is taken out separately. Laurel, which is not a desirable plant for a garden hedge, but which is sometimes used for the purpose, particularly where a dense screen is required in a few years, must have both top and lateral growths cut back, to the same extent as advised for Whitethorns, but the work must be done with secateurs or small shears, so that each growth can be cut out separately without cutting through the leaves.

If all perennial weeds are taken from the soil before planting, little trouble will be experienced in keeping down the seedling weeds, provided they are at no time neglected. The young hedges ought to be cleared of weeds at least three times, during spring, summer and autumn, and should not, in dry weather, be experienced, a 6-inch-thick mulching of short manure on either side of the

hedge, and extending outwards for at least a foot, will prove highly beneficial.

The pruning or clipping of established hedges needs some care, and should be done at the proper season to give the best results. While some kinds, notably Beech, Whitethorn, Holly, Yew and Box, will stand cutting with shears with impunity, others, such as Arbor-vitæ and Laurel, ought to be pruned with knife or secateurs. Even Holly is best done in this way if time permits, but it would be a very tedious and expensive task where large hedges had to be dealt with. Beech hedges are best trimmed during August or September, before growth gets very hard. Whitethorn ought to be cut twice, once about the end of June and again during October. Holly and Yew are best clipped in April, though they may be successfully trimmed during September or October if desired. If, however, it is necessary to cut them back rather severely, leave the work until April. Box and Arbor-vitæ are also best cut in April. Laurel should be dealt with during August, September or October. The shape of the hedge will naturally vary with the position it is to fill. As a general rule, the base should be slightly wider than the top, and except for high hedges of great density, such as Yew, Holly and Box, a flat top is preferable, though this is more or less a matter of taste. Where the kinds named attain a considerable height, it is wise to have the top slightly ridge-shaped, to prevent snow accumulating there in any harmful quantity. During the autumn dead leaves have a habit of collecting at the bases of hedges, and if allowed to accumulate there year after year tend to kill off the basal growths.

Considerable harm is sometimes done to good hedges by the stopping of thin places with dead material. This only tends to kill more of the live growths and so enlarge the gap. Where a thin place is found, some young shoots should be stretched across it in an outward direction, so that light and air can reach them, and unless the hole is a particularly bad one, the growths will not take long to fill it. But sometimes, owing to the demise of a large branch, it is necessary to do something more, and the wisest course to adopt will be to dig out a good hole, fill in with some specially prepared soil, and plant a young bush of the same kind as the hedge. In a year or two this can be trained in keeping with the general contour of the hedge.

Recently several enquiries have been made about the cutting of Box edgings, a subject that is akin to the cutting of hedges. Happily there is no necessity for hard-and-fast rules, and most gardeners now have the Box edgings clipped with shears as they require it, the work being generally done at midsummer and again in autumn. If, however, the Box has become somewhat overgrown and it is necessary to cut it back rather severely, it should be left until early in April; new growth is quickly made at that season, and any bareness that may result from the hard cutting is quickly hidden.

T. T. S.

BOOKS.

The Garden Under Glass.*—As set forth in the introduction, the object of the author is to provide a work for the amateur, in which is couched in simple language how work should be done, lists

* "The Garden Under Glass," by William F. Rowles. Published by Grant Richards, Limited, London; price 6s. net.

of plants suitable for different purposes, and useful diagrams illustrating the structure of the greenhouse and the carrying out of many garden operations. That it covers all ground likely to be of service to the amateur is shown by the list of contents, which are divided into six parts, namely, "The Construction of Glass-houses and Frames," "Popular Greenhouse Plants," "Fruit Under Glass," "Vegetables Under Glass," "Greenhouse Work" and "Miscellanea." Some thirty pages are devoted to the building, staging and heating of the greenhouse, the fruit house, and other more rough-and-ready means of protection. The list of flowering plants is a good one, and explicit directions are given for their culture. At the same time, it would have been better if a more prominent feature was made of the fact that two or three separate houses would be required for the successful culture of the many plants referred to. In the case of *Amaryllis* (*Hippeastrum*), the fact gradually gaining ground among gardeners that the bulbs do not need repotting every year is dwelt upon. The list of greenhouse flowers in winter (page 144) is such as could by no means all be grown in a greenhouse, for it includes *Begonia Gloire de Lorraine*, *Poinsettia pulcherrima*, *Euphorbia jacquiniæflora*, *Calanthe Veitchii*, *Clivia miniata*, with *Cyclamens*, *Cinerarias*, *Primulas*, *Zonal Pelargoniums*, *Stocks*, forced *Hyacinths* and *Tulips*. The directions for growing fruit and vegetables under glass are very explicit, as also are the many cultural details, which, under the heading of "Greenhouse Work," occupies a great deal of the latter part of the book. A weak point—very evident throughout the entire work—is the slipshod way in which capital letters are used in connection with the names of plants. A marked example of this may be found on page 141, where, in a list of some twenty-five climbing plants suitable for growing under glass, the generic names are all spelt with small letters except *Asparagus* and *Ficus*. Why only these two should be so honoured cannot be imagined. Much the same may be noted on page 143, where a list of plants suitable for hanging baskets is given. Not many cultivators will be found to agree with the writer that tuberous *Begonias* do not relish root disturbance, and may be left for two or three years without breaking up, whatever this may mean. Again, referring to *Primula kewensis*, the writer says that the flowers are of a colour hitherto unknown among indoor *Primulas*. That such is not the case is evident from the fact that its parents—*Primula floribunda* and *P. verticillata*—are both greenhouse kinds and both have yellow flowers. Notwithstanding these numerous imperfections, most of which would have been avoided by more careful reading of the proofs, it is a work of considerable value to the amateur, as it goes into details so fully, and is without the fault, common to many books, of assuming that the reader knows more than he really does. One may, however, take exception to "The Cheerful Greenhouse" depicted in the coloured frontispiece, and more particularly to the assertion that "Rightly managed a greenhouse need never be duller than this"! For such a display, say, in December, it would be necessary to draw on several houses with varying temperatures.

Adventures Among Wild Flowers.*—The author refers in the first place to an early love of flowers, stimulated in his boyhood days by earning a promised three sovereigns for finding sixty

* "Adventures Among Wild Flowers," by John Trevena. Published by Edward Arnold, London; price 7s. 6d. net.

blooms of the Pasque-flower (*Anemone Pulsatilla*) on a certain spot in the chalky downs of Berkshire. The main portion of the book is devoted to a journey to the Swiss and Italian Alps, and to a description of the many charming plants to be found there. The conditions under which they thrive are fully dwelt upon, and the entire work is interspersed with light anecdotes of the many adventures which befel the author while travelling in out-of-the-way places. The misapplied use of "alpine" to many of the dwarf plants suitable for the rock garden is dwelt upon, for, as pointed out, they may come from the Himalayas, Rockies, the Cotswold Hills or Siberia, and, providing they are of small growth and suitable for growing among rocks, the term "alpine" is invariably applied to them. The halo that, in popular opinion, surrounds the Edelweiss forms the subject of a note, it being pointed out that in ordinary garden soil it will flourish as readily as a Double Daisy. In the search for flowers in the elevated regions of Switzerland and Italy, the reader is carried step by step through the different districts, and the ever-varying phases of plant-life fully explained. In many cases comparisons are drawn between the behaviour of the plant in a state of Nature and in the writer's home in the Dartmoor district. The black-and-white illustrations taken from photographs are charming, and, for the most part, they depict a plant or colony of plants amid congenial surroundings. One thing that ought not to occur in such an otherwise carefully written book is that mistakes in the use of capital letters continually crop up. Though there are many, two or three illustrations will suffice. On page 107 *Rhododendrons* and *Primulas* are mentioned two or three times over, each time commencing with a small letter. Then, on page 152, *Erigeron aurantiacus* has the specific name beginning with a capital letter. On page 258 some of the species of *Sedum* are honoured with capita's, while on page 263 the genus itself is spelt with a small letter. For all this, it is a book which can be thoroughly recommended to the plant-lover who is anxious to learn something of the conditions under which the occupants of his little rock garden grow wild. It is very probable that the author would at the present time be of a different opinion concerning a part of one paragraph which occurs in the book, and which we cannot refrain from quoting: "The Alps are to Italy what the Channel is to England, a natural protection against the army of invasion. Yet Italy has allowed her line of defence to be pierced in three places, and despite certain insular croakings she is never likely to suffer for it; indeed, if that army did threaten, we can easily imagine the Italian commander-in-chief exercising all his powers of strategy to lure the enemy into the St. Gothard or Mont Cenis, while England, with an example now thirty years old before her, still declines to complete the Channel tunnel, which, with her coastline strongly fortified and the friendship of France assured, would render her secure against invasion and diminish by one-half her Naval Estimates. As a patriot I hope that tunnel will be built in time."

Transpiration and the Ascent of Sap in Plants.*—This is a work of a highly scientific nature, illustrating numerous experiments on the transpiration and the ascent of sap in plants carried out by the author and Dr. J. Joly in

* "Transpiration and the Ascent of Sap in Plants," by Henry H. Dixon, Sc.D., F.R.S. Macmillan and Co., Limited, St. Martin Street, London. price 5s. net

collaboration, assisted by others. As to the subject-matter of the work, we cannot do better than quote an extract from the author's preface: "In the present monograph an account is given of a physical explanation of the rise of water in trees. This theory rests on a knowledge of a property of liquids, which, though discovered in the middle of the last century, was little recognised and seldom referred to in physical literature. It now appears that a full appreciation of this property is essential for the realisation of the manner in which water is raised in plants, and of the meaning of the structure of trees as a mechanism for lifting water." The series of experiments conducted by the author to support his theory is very exhaustive, and of great interest to the more advanced plant scientists. It is in every respect a well-produced work, and should prove of considerable value to those who have mastered the more rudimentary portions of the science of botany.

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

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ANSWERS TO CORRESPONDENTS.

QUESTIONS AND ANSWERS.—*The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.*

FLOWER GARDEN.

COLOUR ASSOCIATION (Interested).—Our correspondent enquires, "What colours could be used in a long border of various shades of pink *Antirrhinums* as dot plants?" and the immediate answer is, it is very much a question of taste. Candidly, we do not care for "dot" planting. The effect in a border is usually poor and weak, and contrast grouping or grouping for harmony is more pleasing or effective. With pink of all shades, yellow, cream, white and rose pink invariably agree; strong or intense blue, as seen in *Salvia patens*, usually the reverse. If blue is used, it should be of the softest shades, palest lavender or something akin usually found in Sweet Peas, which would probably be too tall for your purpose. For most of the first named you might encroach even more deeply upon the Snapdragon family itself with good effect, in plants of even weight and floriferousness. For example, supposing you were employing dwarf *Antirrhinums* in the main, a bold outcrop group of yellow or white formed by one of taller growth, say, of the medium or tall section, would be rather striking. Effective and easily grown plants to remember are *Statice Bonduellii* (pale yellow), *Helichrysums* Silver Queen, Golden Globe and Pink Beauty, with perhaps a *Fuchsia* like Ballet Girl, whose big white corolla is more conspicuous than the scarlet sepals. In foliage plants, white and silvery leaved ones, as *Cincaria maritima* and *Centaurea candidissima*; in green, Summer Cypress or *Kochia*; in variegated, *Dactylis glomerata* elegantissima and *Holcus lanatus* variegata should be kept in mind. If possible, crescent-

shaped bays, each separated from the other by at least 4 feet of an intervening mass of the Snapdragon, might be arranged in front of the border, and planted with white, cream and pale yellow Tufted Pansies or like shades in tuberous *Begonias* would be very effective. If this were done, we should be inclined to abolish the "dot" groups entirely, and instead arrange a double row of white or pale yellow Snapdragons at the back for effect. These are, of course, suggestions, and without knowledge of the surroundings some may be impracticable. At the same time they might constitute a sort of finger post. We do not know of a cheap book likely to be of the least service to you, but "Colour in the Flower Garden," by Miss Jekyll, published at this office, post free 12s. 11d., would be very useful.

THE GREENHOUSE.

TREATMENT OF *CŒLOGYNE CRISTATA* (Joe).—

This is the name of the Orchid of which you sent a specimen. It, as a rule, blooms in February and March, and the spikes of flowers with their conspicuous orange lip are always much admired. The general directions for its successful culture are as follow: In the first place, it needs the temperature of a warm greenhouse or intermediate house, where, as a rule, it blooms during February and March. About a month after the flowers are over is a good time to repot it if necessary. From what you say, it is most probable that yours needs repotting, which should be carried out at the time stated above. It must be borne in mind that the *Cœlogyne* is a shallow-rooting subject; hence for its successful culture pans are much preferable to pots. These pans should be quite clean and half filled with broken crocks, over which must be placed a layer of Sphagnum Moss. A suitable compost may be made up of three parts fibrous peat and the remaining part of Sphagnum Moss cut up into short lengths, a dash of loam, and some fine broken crocks with a little silver sand. Such a mixture will keep fresh and sweet for a long time, as when in good condition the plants will not need repotting every year. After being potted they must be shaded from the sun till thoroughly established, after which the shading may be lessened, and towards the end of the summer the plants will be benefited by exposure to full sunshine in order that the bulbs are thoroughly ripened. When growing freely they need a good supply of water at the roots and a daily syringing overhead. Soon after growth is completed—that is to say, when summer is well advanced—the flower-spikes commence to show, but they make slow progress. As soon as they are seen, the plants must not be syringed or watered overhead, as if moisture collects around them they are apt to damp off. At this period the plants will require less water, but at no time must they be kept dry enough to cause the pseudo-bulbs to shrivel. As the flowers develop, more water will, of course, be needed, but not to the same extent as when the plants are growing freely. It is quite possible, when you turn your plant out of the pan in which it is growing, that it will naturally divide into several pieces. If such is the case, they may be returned to the pan and distributed over it, not bunched up in the centre. In this way they all have room to grow. Care must be taken to place the growing shoot pointing towards the centre of the pan, and thus ensure a shapely specimen. If you desire to increase your stock, any smaller pieces may be put singly into small pans, or even pots, and treated as above recommended.

ROCK GARDEN.

MOSSY SAXIFRAGES BROWN IN CENTRE (Grey Court).—The only thing to do in the circumstances is to lift and replant the portions of the clump which remain green, the "bare portion in the centre" being doubtless dead and beyond aid. This dying off in the centre is not an infrequent result of an early excess of growth, which virtually lifts the central portion of the clump out of touch with the soil. It is more frequent, too, in the case of the stronger-growing sorts than with the dense carpeters of the race, and in particular where the plants are not either well watered in times of drought or heavily mulched with soil. All these Saxifrages root afresh, when opportunity is afforded them, from the immediate base of the rosettes of leaves; hence either replanting or heavy mulching is needed to sustain vigour in the old plants. In your case replanting the livelier parts of the plants will be the best, and in so doing arrange three or four rosettes, i.e., single growths, on a level, and so insert them that their bases are firmly set in the soil. By arranging a dozen or more examples of the size named over an area of 2 feet, a new clump with all the vigour and freshness of youth will presently result. Endeavour, of course, should be made to get root fibres to each, the old stems to be well buried in the soil. In dealing with the smallest kinds, allow double the number of rosettes to each tuft. The work may be done now or in February or March next.

ROSE GARDEN.

SWEET BRIARS PLANTED IN NOVEMBER (Rustic).—There is no need to prune the Sweet Briars the first season after planting, excepting just to remove the extreme ends in March. The second year and subsequent years, in order to keep the hedge well furnished at the base, prune hard back one or two of the oldest growths. When the Briars attain the desired height, they may then be pruned back as you wish. These remarks apply to the common Sweet Briar, also the Penzance hybrids.

THE GARDEN.

No. 2253.—VOL. LXXIX.

JANUARY 23, 1915.

NOTES OF THE WEEK.

The City of London Rose Society.—This society, which is as yet in its youth, continues to make good headway, and the committee have decided to hold their summer show on Thursday, June 24, at Cannon Street Hotel. The Lord Mayor, the Right Hon. Sir Charles Johnston, has kindly consented to act as president for this year, and has promised to open the show on the date named. An excellent schedule is being prepared, and full particulars of membership can be obtained from the hon. secretary, Mr. A. E. Protheroe, 67 & 68, Cheapside, London, E.C.

Rosemary and Cut Flowers.—Those who have a good-sized Rosemary bush in their gardens have also excellent material for using with nearly all kinds of cut flowers that are obtainable just now. A few long sprays cut and placed carelessly in a vase with Carnations is as pleasing and fragrant a combination as one could wish for. Shoots of Rosemary and Winter Jasmine are also very effective, both by day and under artificial light. A large Rosemary bush usually needs a little cutting back, and it may now be safely denuded of too venturesome growths for the purpose named.

Trollius chinensis.—This is one of the new varieties of Trollius (Globe Flower) from China, and is distinguished by its rather tall habit, and more especially by the length of its petals, or petaloid stamens as they are frequently called. These stand up in a circle round the stamens, are a great deal longer than those of any other variety, and give the flowers a very characteristic look. It can be raised from seed, but a word of warning is necessary for those who have never sown Trollius seed. If it is kept for any length of time after it is gathered, germination will not take place for a year or even longer.

Romneya Coulteri.—There is a very fine example of this magnificent perennial in the gardens of Acton Burnell Hall, near Shrewsbury. No plant could be more vigorous and healthy. The head-gardener attributes this to his placing large, flat stones over the roots when it was planted. He has advised this course in several cases, and in each one the report has come back, he said, that his "tip" had been adopted with the best results. We have often heard of the value of stones being placed over or among roots, and now it seems that *R. Coulteri* must be added to the list of plants which benefit by this treatment. The stones at Acton Burnell are entirely hidden below the soil.

Godetia Double Rose.—Those who appreciate good annual flowers for cutting should certainly order seeds of the Godetia named Double Rose. It is of quite a different type to the older dwarf varieties, as it makes shoots 2 feet or more in length, these being studded from near the base to their tips with dainty rose pink flowers that never fail to elicit praise from visitors. It is a charming plant in the garden, but is even more beautiful when sprays are cut and placed in

preferably composed of good loam two parts, leaf-soil or peat one part, and silver sand one part. The surface ought to be made quite level and the seeds scattered evenly and thinly over it. A little silver sand is sufficient covering, but each pan or box ought to be covered with a piece of glass until germination has taken place. A temperature of 55° to 60° is desirable to raise these plants successfully from seeds, though we have seen good results with 10° less.

Four Good Dry-Wall Plants.—In dry-wall gardening many delightful surprises await the enthusiast. This particularly applies in the way individual plants adapt themselves to the wall face and the form they eventually assume. The illustration affords an instance in showing the way *Arenaria balearica* ramifies in all directions, forming a complete carpet of green stems, bejewelled with white, starry flowers. The lavender blue of *Aubrietia græca* presses close up to it from the lower courses, while higher up it forms a continuous link with the cobalt blue of *Phlox subulata* Seraph. On either side appear small tufts of the Mossy *Saxifraga cæspitosa*. All four are typical, free-growing rock plants that succeed in any well-drained garden soil and give generously of their flowers during May. The *Saxifraga* forms immense cushions of the liveliest green, and its winter aspect is delightful, while in May it becomes a sheet of creamy white.

Outdoor Flowers in Midwinter.—When looking round the garden on Sunday last, the 17th inst., we were reminded that Nature is already awakening from her winter slumber. The following list of plants in bloom, jotted down at random, may be of interest: *Galanthus Elwesii*, a beautiful large Snowdrop; the Winter Aconite, with its bright yellow, Buttercup-like flower studding a ruff of deep green; *Iris stylosa*, as delicately fragrant as its azure flowers are beautiful; Winter Jasmine, with vivid yellow blooms, the wonderful



PORTION OF A DRY WALL WITH FOUR USEFUL PLANTS IN FLOWER.

sheen of which is only revealed when they are kissed by the winter sun; Christmas Roses; the Japanese Witch Hazel, *Hamamelis mollis*, with its long, crinkled yellow petals; the Winter Sweet, *Chimonanthus fragrans*, so delightful for cutting; and Wallflower Yellow Phoenix. It would add considerably to the interest of gardens during the winter months were more attention given to such plants as those named. Not one is really difficult to grow, and most of them provide charming cut flowers for the house.

Gloxinias and Tuberous Begonias from Seed.—We would remind those who are desirous of raising these plants from seeds that during the next week or two is the best time of the year for sowing. As the seeds are very small, the well-drained pans or boxes must be filled with finely sifted soil,

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Planting Crinum Powellii.—I have found the best way is to plant very deeply, of course arranging for plant food to be beneath the bulb; but what is also important is to plant the bulb up to its neck in a concave pit; then, as the plant forms a neck above the ground, gradually during the summer to keep filling the pit until it gets to the level of the surrounding soil.—W. D. P.

Soaking Daffodil Bulbs in Water.—Mr. Jacob, on page 4, issue January 2, throws doubt on the efficacy of immersion in water of bulbs attacked by merodon grubs. He says he has not tried it. I have. I cannot too strongly recommend it being done. Fancy cutting open a bulb that has cost many sovereigns when immersion will bring out the "beast" if he is there!—C. LEMESLE ADAMS.

Helleborus niger altifolius.—Many times I have written in praise of this Christmas Rose, and am pleased you recommend it so strongly on page 1, issue January 2. The finest-grown plants of this variety I have seen are in the gardens at Corhampton House, Bishop's Waltham, Hants, the residence of W. Campbell Wyndham Long, Esq. Mr. Cawte, the gardener, manages to have huge quantities of flower early in December

be best for purposes of judging, but it quickly becomes tedious and tiresome for table decoration. In an effort to escape from it, late one autumn, I decided to do a dish of Sweet Peas for my table, and it was hailed with delight. My friends dived their noses into it and exclaimed, "How delicious!" (Folks do not desire to bury their faces in a bunch of bristles.) I do not say, however, that this "is a better way to arrange flowers, but only suggest that "variety is charming."—ANNE AMATEUR.

How to Flower Banksian Roses.—Much that is good has been written on this subject in THE GARDEN of late, and there appears to be little more to say on the subject. I do not remember one writer who has distinguished between the two varieties. Whereas the yellow form will give numerous blooms under proper conditions, it is seldom that a plant of the white form is met with that has more than a sprinkling of blooms. Naturally, it is not so free as the yellow; indeed, it is seldom met with at all. Perhaps a southern aspect is the best for the yellow variety, but on an east or even a west wall it flourishes when the growth is not too thick. A wall not less than 20 feet high suits it admirably, where the growth has plenty of space to develop and eventually becomes thoroughly matured. So many persons consider that when a Rose tree is once planted it requires no more attention. This is a mistake, as the Banksian variety revels in being well supported with moisture

of leaf-mould, no peat. Take up roots end of March, cut off all long ends (which if left untrimmed cause crowns to rot) and dibble the slices in lines." This is not a verbatim copy from the book (which I do not possess, to my sorrow), but the note I made at the time. From Sir Herbert's letter in January 9 issue it appears that the same practice is successfully followed by another Scottish gardener. May it not be that the different results obtained by such acknowledged experts as Sir Herbert Maxwell and Mr. Jenkins are due to differences in soil and climate? Both agree as to deep cultivation, but while Sir Herbert says (in "Scottish Gardens") stiff soil, plenty of leaf-mould and no peat, Mr. Jenkins advocates sandy loam with perfect drainage. Here, with a choice of both soils and a cold, damp climate, I intend trying both methods, and only wish some kind friend would supply me with a "dozen clumps of Helleborus niger maximus" for the purpose!—WALTER DE H. BIRCH, *Walton-le-Dale, Lancashire.*

A Hedge of Sorts.—Here is a list for "Anne Amateur," who appeals for suggestions on page 14, issue January 9. Will she listen to the words of wisdom of one who has gardened for so many years that she is hardly any longer an amateur? If Laurel *must* be used, thief as it is, robbing the ground for delicate shrubs, let it be the long-leaved, pointed sort, which is not ungraceful if put where it may grow tall and loose-branched and flowering. One of these Laurels in full flower is a thing of beauty; but pruned and kept in bounds—no! (1) *Amelanchier canadensis*, pale pink leaves in spring, flame in the autumn, and delicate sprays of white flowers early. (2) *Prunus Pissardii*, purple-leaved and sweet white blooms in very early spring, may be cut and brought indoors in bud, and the more you cut, the more flowers next year. (3) *Forsythia suspensa*, in February; also its yellow flowers will open indoors. Prune after flowering to get long sprays for next year. (4) *Choisya ternata*, quite hardy in Dorset, flowering twice. (5) The most brilliant-fruited Crab is John Downie, and you may boil its fruits in sugar for dessert. (6) The most beautiful-flowered Crab is *Pyrus Malus floribunda* (bring in its sprays in bud). (7) *Cotoneaster frigida*, and (8) *Pyrus Aria* for brilliant red fruits in autumn; these are little light trees. (9) and (10) *Hamamelis arborea* and *H. mollis* flower early in February. (11) and (12) *Berberis stenophylla* and *B. Drummondii*, lovely orange and yellow flowers. If not too late, do not put *only* Hybrid Sweet Briars on the posts—they flower, and are gone. Jersey Beauty flowers later and long; sweet, single, ivory. American Pillar is glorious. René André is delicious and flowers twice; salmon pink. Alberic Barbier also flowers twice, and is lemon white.—LADY OF THE FLOWERS.

A Free-Flowering Liliun auratum.—The enclosed photographs may be of interest to you. One shows three spikes of bloom from one bulb of *Lilium auratum* flowering in my garden here last September. There were in all forty-one blooms on the three spikes. It had no special care, and the bulb was purchased from a local nurseryman for ninepence. The other photograph shows the result of a bulb planted about a yard away, which had one spike of bloom only, but larger individual flowers.—ARTHUR H. LYNE, *Silver Hoor, Cliftonville, Dorking.* [Unfortunately, the photographs sent by our correspondent were not suitable for reproduction, but one showed three very fine flower-spikes.—ED.]



A DISH OF SWEET PEAS ARRANGED FOR EFFECT, AND TO PROVIDE A CHANGE FROM TALL DESIGNS.

annually by the aid of a cold frame only. In fact, he grows the roots in the frames all the year round, encouraging a free growth directly the blossoms have faded in February. By this means he builds up plants with stout crowns thoroughly matured early in the year, and which never fail to give the best results.—E. M.

Long-Stemmed Flowers.—I see one of your correspondents has on page 22, issue January 9, at last ventured on a gentle protest against the overlong stems of flowers, which seem to be the delight of professional florists. The aim of the average exhibitor appears to be to approach as closely as he can to the arrangement of bunches of bristles in a brush. This may (?), perhaps,

at the roots during dry weather, especially if that be in June or July, after the flowering season is past. It is at that period when aid in establishing a satisfactory growth is of value, giving to the foliage that glossy tinge which denotes perfect health and a corresponding flower crop later.—E. M.

Transplanting Christmas Roses.—There seems to be considerable divergence of opinion on this subject (see page 15, issue January 9). About six years ago I made the following extract from "Scottish Gardens," by Sir Herbert Maxwell, whose interesting articles on "Hardy Lilies" you are now publishing: "*Helleborus niger maximus*.—Stiff soil very deeply dug, plenty

Daffodils for the Garden.—With reference to the remarks made by "J. R." under the heading "The Ideal Catalogue" in your issue of January 9, page 22, I agree with him that there is need for more information from enlightened quarters as regards varieties of medium price which are eminently suitable for garden decoration on account of their strong constitution as well as for the exhibition table. Several varieties which are recommended in trade catalogues and are seen at nearly every show in the British Isles are more or less worthless as garden varieties. The first variety which I wish to mention is King Alfred, this being in the first rank as a show flower, but, alas! in most parts of England at least, it is an exceedingly bad doer, and until its price comes down to 2s. 6d. a dozen or so it is not worth buying except for those who must have it for the exhibition table. Where it does well it is practically the giant of its tribe, but in most localities it is so badly affected with leaf stripe that it is a poor weakling. When it has reached a moderately low price it will be worth buying a dozen bulbs every year by those who wish to compete, say, in a mixed class of twelve or twenty-four varieties, as it is most telling as a big back-row flower. Another variety mentioned by "J. R." at the beginning of his letter, which is equally prominent on the show board and which in my garden in Middlesex is also a poor doer, is Homespun, although I must say it is nothing like so bad as King Alfred and does not suffer from leaf stripe, but it is not sufficiently robust in growth to take its place among the good garden varieties. Its place on the show board is also more easily filled than that of King Alfred. There are several newer varieties of yellow incomparabilis which easily eclipse it, and which, when they become more reasonable in price, will be in the gardens of most exhibitors. At the end of my letter I give a short list of varieties which can be bought at present for ros. or less, and which I have tried here for the last two years at least and found satisfactory for any purpose. Those mentioned by "J. R." above the price stated, which come up to my standard from all points of view, are Loveliness, Great Warley and Lord Kitchener, and I might add another of my own stock, namely, Lowdham Beauty. All four are good growers, the three last mentioned specially so. My list of good strong growers within the price stated suitable for exhibition or the garden is as follows: Yellow trumpets—Lord Roberts, Mrs. H. J. Veitch, Van Waveren's Giant, Monarch and Glory of Leiden. White trumpets—Mme. de Graaff, Mrs. Robert Sydenham and Mrs. Betteridge. Bicolor trumpets—Mme. Plemp, Weardale Perfection, Glory of Noordwijk and Duke of Bedford. Yellow incomparabilises—Noble, Solfatare and Marigold. Bicolor incomparabilises—Lady Margaret Boscawen, Whitewell, Lucifer and Orangeman. Yellow Barrii—Castile, Cœur de Lion and Glitter. Bicolor Barrii—Royal Star, Sunrise, Incognita and Southern Star. Leedsii—White Queen, Diana, Evangeline and Maggie May. Poeticus—Horace, Cassandra and Virgil. Double—Inglescombe Phoenix, Primrose Phoenix, Argent, Plenipo and Dubloon. I have mentioned the six divisions which I grow, and although there are five more in the Royal Horticultural Society's Classification, the above are the ones principally grown. I do not pretend to be one of the "enlightened," and write this letter entirely in the hope that someone much better able may come to the rescue and help—A SMALL AMATEUR.

SOME HARDY LILIES.—IV.

SUB-GENUS ARCHELIRION.

(Continued from page 28.)

Lilium Henryi, introduced from Central China towards the close of last century by the intrepid collector whose name it bears, Dr. Augustine Henry, this fine Lily has already responded to cultivation by attaining a stature far exceeding that of the wild plants and by producing its gay orange flowers in greater profusion. The blossoms resemble those of *L. speciosum* in shape and size, but are of a rich golden hue, and open in late summer. It is a splendid acquisition, and its requirements are few and simple. I have seen it growing luxuriantly in gardens where little intelligence had been applied to the management of Lilies in general. Its chief peculiarity is that the long stems, sometimes reaching to 7 feet or 8 feet, cannot support themselves, wherefore the bulbs should be planted a foot deep among shrubs whereon the sprawling stems may recline. It is a lime-lover, but does not insist upon that ingredient if it has well-drained loam, a liberal supply of water in summer and, when thoroughly established, a good mulch of well-decayed farmyard manure.

L. speciosum, formerly known as *L. lancifolium*, is perhaps better known to British gardeners as a pot plant than as a permanent open-air dweller; but there is only one drawback to its use in the borders, namely, that, although the earliest of all hardy Lilies to show above ground in spring, it is one of the latest to flower. Hence in cold or sunless districts it is apt to be caught by autumn frosts. The beauty, however, of the many varieties entitles it to a position where it may receive all the sunshine that is to be had in regions where clouds prevail. There are two sources of supply for the bulbs of this Lily—its native Japan and the Dutch nurseries. The Japanese bulbs produce the finer flowers; but, as their roots are trimmed off for export and as a large proportion of the bulbs are diseased, special precaution is necessary before they can be established in the open. "Those," says Mr. Grove, "who wish to grow the Japanese sorts should pot the bulbs for the first season, cutting off all the flower-buds that may form, and planting out any that are in good condition after the first season's growth. This may be a trial of patience for some, but it is the best way in the end." Dutch-grown bulbs of *L. speciosum* generally arrive in this country in pretty good condition; but it is worth the extra trouble to attain success with the finer Japanese varieties, of which the pure white Krætzleri, the glowing rubrum magnificum and the rose-coloured Melpomene are the pick. The cultural requirements of *L. speciosum* are the same as those of *L. auratum*, save that, owing to its habit of late flowering, it should be given a sunnier position. The stem

roots will take as much nourishment from rich mulching as can be afforded them, with marked effect upon the quality of blossom.

L. tigrinum.—If the Tiger Lily were a rare species, or if it required elaborate preparation of soil and other conditions of cultivation, it would be prized as one of the most delightful flowers in British gardens. Luckily, it is to be reckoned among the easiest of Lilies to obtain and to grow, although it does not always receive the attention it deserves and requires, if it is to be enjoyed at its best. The type is a fine thing, but the varieties splendens, with stems of shining black, and Fortunei, with lofty wands clad with wool, are finer still. The bulbs should be planted at least 6 inches deep (those of Fortunei 10 inches or 12 inches) in good loam with an admixture



LILIAM DAVURICUM LUTEUM, A CLEAR YELLOW VARIETY WITH PROMINENT DARK SPOTS. (See page 40.)

of pulverised peat and sand, without a suspicion of lime or chalk, and in full sunshine. There is a double form of this Lily, but if I had my heel on the last bulb of it I would crush it (unless I had it cooked for the table, as the Chinese use it), for in the double flower is destroyed that union of splendid colour and perfect form which distinguishes the Lily genus among all herbs of the field. The propagation of all varieties of the Tiger Lily is extremely simple, by means of the bulbils which form in the axils of the stem leaves. If these are set out in lines in a nursery bed, flowering bulbs will be the result in three or four years. Cultivated in Japan as an article of food, the bulbs of this Lily (and most other Asiatic species) have a peculiar attraction for rats and mice; wherefore deep planting is expedient and a stony soil is no slight advantage.

SUB-GENUS ISOLIRION.

Lilium bulbiferum.—One is accustomed to hear this Lily slightly spoken of as a coarse and uninteresting species. If I cannot share this view it is because, many years ago, I brought home a Lily from an altitude of between 6,000 feet and 7,000 feet in the Valtelline, which bore flowers of a splendid flame colour. I believe this to have been a fine variety of this species. It is a plant there is no excuse for losing, seeing that it bears axillary bulbils as liberally as the Tiger Lily; but lost it I have, during a

long series of summers squandered in the House of Commons. There is no mystery in the cultivation of this species; what satisfies the Orange Lily will leave the bulbiferous one nothing to complain of.

L. concolor, a desirable little Lily of Chinese origin, bearing, on stems 12 inches to 18 inches high, three or four crimson flowers. It is said to be easily grown if planted 5 inches deep in sandy soil, not allowed to suffer from drought in the growing season or from want of rapid drainage when at rest, but I have no experience of it, save as seen in the borders of a friend.

L. croceum.—The true Orange Lily is not always to be had when ordered from a nurseryman, though some very handsome hybrid or variety may very likely be supplied, with flowers more or less stained with sanguine hue. The type, however, brought to this country centuries ago from the Mediterranean, is commonly to be found in the garden plots of cottages and farm-

spirally, ending curiously in a flat top, on which the brown flower-buds appear in May. The fine varieties of *L. davuricum* require general treatment like that prescribed for the Orange Lily, but they are less able to withstand winter wet; wherefore, unless a place can be given them where water runs quickly away, the pits to receive them should be dug deep enough to admit an inverted flower-pot being set beneath each bulb, with a covering of 4 inches or 5 inches of soil over the bulbs. In June of the present year there was a splendid display of *L. davuricum erectum* on a small island of the river Itchen, on which Mrs. Trimmer had set about a hundred bulbs. They have grown strong and multiplied, and the blaze of colour could be seen half a mile away.

L. elegans (syn. *thunbergianum*), a dwarf Lily from Japan, differing from the European *L. bulbiferum* and *L. davuricum* in that it is a stem-rooting species, whereas the others root only from the base of the bulb. It is the pro-

colour of the flowers varies in different plants, but is most commonly bright orange with purple spots. Each segment of the flower is set on a narrow stalk, giving the erect blossom a very delicate grace. It requires to be planted 5 inches or 6 inches deep in well-drained loam without lime.

HERBERT MAXWELL.

(To be continued.)

SOME WINTER-FLOWERING HEATHS.

ALTHOUGH the Heath garden is interesting at every season of the year, it is during the dull days of winter that we most appreciate the dainty little flowers of this moorland family.

Of no other race of hardy shrubby plants can it be said that we have representatives in flower during every month in the year; hence it is not surprising to find that hardy Heath is rapidly gaining in favour. Articles on their cultivation have appeared in these columns from time to time, and it is not necessary now to go into details of what, after all, is a very simple gardening operation. Given thoroughly drained and, therefore, moderately warm soil that is free from lime and contains a good proportion of humus, most of the hardy Heaths will grow and flower well with very little attention.

The best of all the Winter Heaths, or at least the one that is most appreciated, owing to its early flowering, is *Erica mediterranea hybrida*. This rarely exceeds 1 foot in height, and often only reaches a modest 6 inches, making a neat tuft of green branching stems and foliage that from early December until well into February are smothered with bright rose pink flowers. It is quite hardy and appears to do well nearly anywhere. It is really difficult to understand why this Heath is not more extensively grown, as for some years past large beds of it at Kew have provided valuable object-lessons in winter colour effects for all who wish to learn. The next Winter Heath to be mentioned is *E. carnea*. This does

not usually reach the zenith of its beauty until February is well advanced, but for some time previously the plants are full of greenish purple flower-buds that have apparently been waiting for the late winter sunshine, with its increasing power, to develop fully the carmine red colour of its myriads of flowers. It rarely exceeds 6 inches in height, and the sight of a large colony clothing a rugged, sun-kissed bank in February is not easily obliterated from one's memory. There is a white-flowered form of it named *E. carnea alba*, but the blossoms are only of a dirty white tint, and it is not a plant to be compared with the type or the white Heather of autumn.

The other hardy Heath that calls for mention now is the Portuguese Heath, *E. lusitanica* or *codonodes*. This makes a tall, erect bush 3 feet to 4 feet high, and during the latter part of January and onwards through February is usually covered with its whitish, pink-tinged flowers. *E. Veitchii*, a hybrid raised by crossing the Portuguese Heath with *E. arborea*, flowers in late winter and early spring.



ERICA CARNEA MASSED ON A ROCKY BANK. THIS IS A CHARMING HEATH IN WINTER AND EARLY SPRING.

houses, especially in the North of Ireland, where its presence indicates the religious and political faith of the householder. It is a splendid Lily, though use has blunted our appreciation of the fine gold which it displays early in July. Plant the bulbs in a sunny place about four inches deep in loam inclining to stiffness, and leave them alone, except for an occasional dressing of well-rotted manure. It flowers in July.

L. davuricum, a Siberian species, has become so mixed up with the garden varieties known as *L. umbellatum* that the original wild form is seldom seen. Several of these varieties are well worth growing, probably none more so than the kind ticketed "incomparabile," with flowers of intense blood colour, and the gay *L. davuricum luteum*, clear yellow, beautifully set with dark spots. Nor are the flowers the only attraction offered by the umbellate Lily. It makes its early appearance above ground in most delightful fashion, sending up a stout column densely clothed with bronze-coloured leaves set

genitor of a great number of varieties, much more attractive than the type. I must confess that, although I have grown several of these, I have quite lost count of the nomenclature, and am fain to resort to Mr. Grove's list of those which he considers best, namely, *Horsmanii*, dark crimson; *Alice Wilson*, yellow; *venustum*, apricot; and *Wilsonii*, late-flowering. These Lilies require all the sunshine they can have in this country, provided their roots are screened by some lowly growth. The bulbs should be planted 9 inches deep in very sandy soil. In the Kew List, *L. Batemani* and *L. Wallacei* are described as varieties of *L. elegans*; but Mr. Grove takes exception to this arrangement, pointing out that the bulb of each is quite different from that of *L. elegans*. ("Lilies," pages 52 and 53).

L. philadelphicum is a gaily-coloured little American Lily, not nearly so well known in British gardens as it deserves to be. It bears umbels of three or four flowers on stems 18 inches to 2 feet high, and likes a sunny situation. The

ROSE-GROWING IN TOWN GARDENS.

Protection from Frost.—It is now many years since a severe winter has been experienced in this country, and consequently those who have neglected to protect their Roses during the coldest months have seldom had to pay the full penalty of their omission. It is quite usual, however, for a certain proportion of the trees to fail even after a mild winter, and as the damage done by frost is often undetected until the spring is well advanced, late planting, with risk of another failure, is the only means of filling the gaps in one's beds. To avoid this it is certainly worth while to take a little extra trouble before severe weather sets in. With bush Roses the only precaution that need be taken is to earth them up, that is, to draw up the surrounding soil so as to cover 2 inches or 3 inches of the basal shoots of each plant and form a small mound of earth about the crown. Even if all growth above ground is then frosted, there will still be sufficient of the plant left alive in the spring to give a good result. With standard trees there is more difficulty. The protection usually recommended is to place dried Bracken fronds in the heads of the trees, taking care to cover the points at which they were budded. In towns Bracken is not often obtainable, but straw is quite as good for the purpose, the covers used for packing wine bottles (when unfastened at the top) being just what is required, and with a little manipulation one such cover may easily be made to protect all the essential parts of a tree. Brown paper might answer almost equally as well in the dry weather, but the objection to it is that it becomes sodden, unless first greased, and one does not want to keep renewing the covering when once it has been placed in position. Cold winds, and especially draughts (as may be caused by a hole in a fence, for instance), are much more likely to damage the plants than are still frosts. The coldest winds reaching this country are from the north and east; consequently it is of great advantage to have the Rose-beds in such a position that they are sheltered from these quarters. The labels usually attached to Rose trees soon become illegible, and no time should be lost in recording the names in a more permanent manner. As I have suggested in a previous article, this is easily done by noting in a book the kinds planted in each bed in their correct order, or by making a rough plan of the beds showing the Roses in their positions. During the wet and windy weather of the last few weeks, those bushes with large heads have been so blown about as to cause a "collar" round the stem, and this is frequently filled with water. The soil must first be loosened and then made firm again.

P. L. GODDARD.

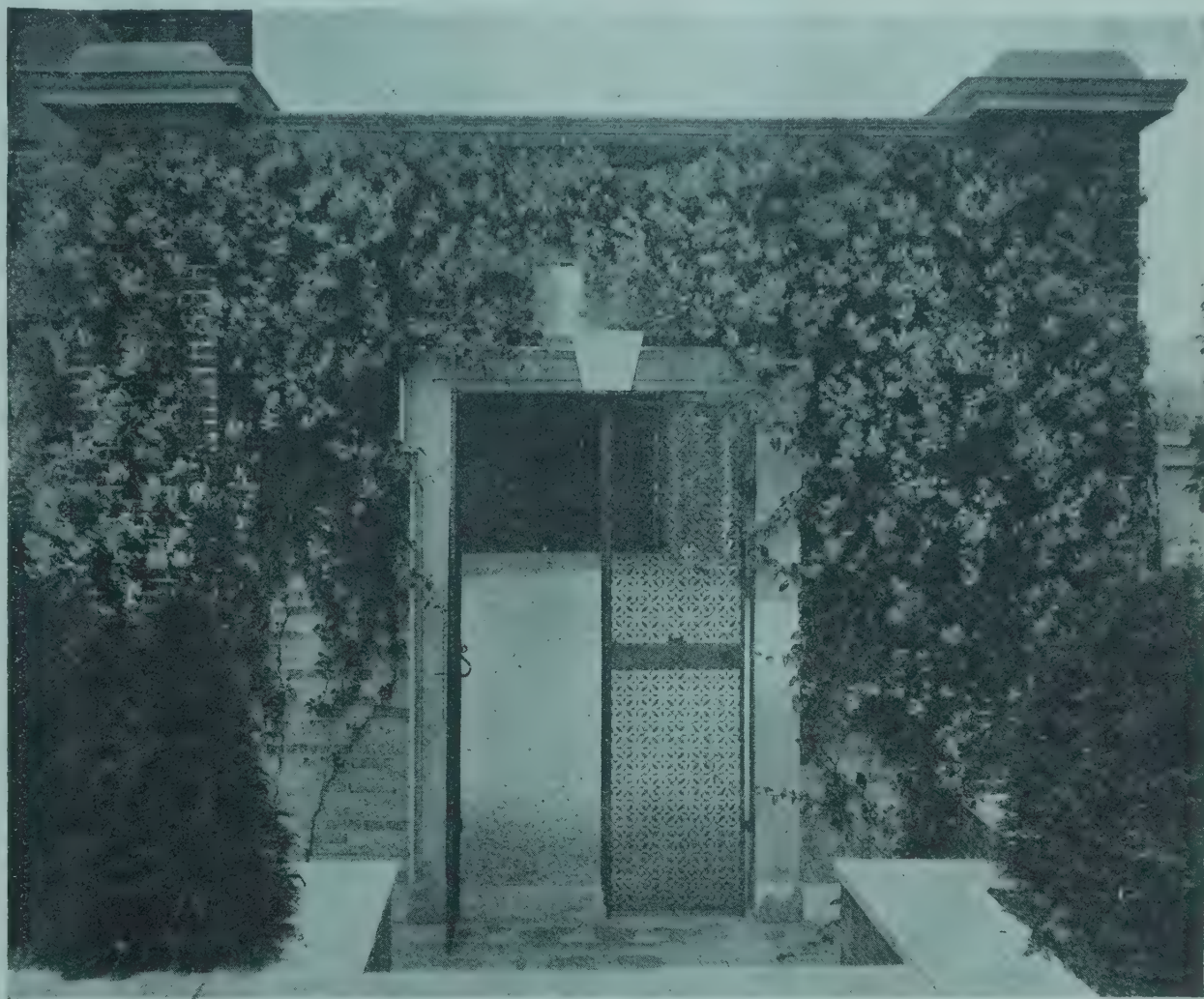
CHRYSANTHEMUMS THAT LAST WELL IN SCOTLAND.

AT this season, when the bulk of Chrysanthemums are propagated, it may be of some service to those who grow the Autumn Queen for conservatory or room adornment and for cut-flower purposes to have a few hints as to the varieties that remain in good condition for a fairly long period. I have kept notes of these in previous years and very carefully this season.

Big-Bloom Varieties.—William Turner, purest white, and when well grown one of the very finest varieties in cultivation. As a rule, second natural

Mrs. W. T. Smith is not unlike Mrs. A. T. Miller, but stands about double the time and has much better foliage. A beauty. Good flowers from either buds. Rose Queen stands well, notwithstanding its rather flimsy florets. Either first or second crown buds and good cultivation. One or two "old stagers" that are still well worth a place keep fresh for a long time. These include Mme. G. Henri (white), Lady Esther Smith (incurved white), Exmouth Rival (brilliant crimson), Buttercup (incurved), Embleme Poitevine (incurved yellow) and Edith Jameson (lovely pink).

Decorative Varieties.—Black Prince, David Ingamells (probably the longest laster of the lot), Freda Bedford, Market Red, Niveus, W. Duckham and Mrs. J. Ritson.



A BEAUTIFUL HARDY CLIMBER, POLYGONUM BALDSCHUANICUM.

crowns give the best results. Mary Poulton, a lovely pale pink of refined form and a fairly easy variety to manage. Second crown buds are best. Mrs. L. Thorn is still one of our finest yellow Chrysanthemums, and a dwarf, healthy grower. Second crown buds are best. Mrs. R. Luxford, a bright reddish crimson, but shows the yellow reverse, especially when first opening. Of excellent habit. Second crown buds are best. Mrs. E. A. Tickle, a really good pink, something like the old Mrs. G. Mileham, but larger. Good on either bud, but seconds are more refined and purer in colour. Fred Green is of a lasting wine red colour and of beautiful shape. It has fine foliage and fairly dwarf habit. First crown buds are desirable. His Majesty is a beautiful deep crimson variety that has stood well this year, but, as I have never grown it before, I am unable to give its behaviour in different seasons. First crown buds are best.

Single Varieties.—Ceddie Mason, Mensa, Lady-smith, F. W. Smith, Kitty Bourne, Crimson Queen, Joan Edwards, Brightness and Miss Mary Anderson. *Preston Gardens, Linlithgow.* C. BLAIR.

A BEAUTIFUL FLOWERING CLIMBER.

THE plant illustrated on this page is an extremely beautiful climber, having the misfortune to be named *Polygonum baldschuanicum*. It makes many feet of growth annually and bears rosy-tinted panicles of flowers in great profusion both in early summer and again in autumn. Although suitable for clothing pillars, verandahs and buildings generally, it is unquestionably seen to the best advantage when allowed to cover old trees in the pleasure grounds. It appreciates a sunny position and fairly good soil.

C. Q

THE ICELAND POPPY.

THERE are few more beautiful hardy flowers than those of the Iceland Poppy, *Papaver nudicaule*, and it would be difficult to find any that are more highly appreciated for indoor decorations when cut. Unfortunately, they are not grown nearly so extensively as their charm and usefulness would justify, a fact that is no doubt due to the troublesome habit the plants have of dying off during the winter. As the plant is a native of the Arctic Circle, this mortality cannot be due to cold, but is undoubtedly brought about by the excessive moisture that characterises our winters.

To get over this difficulty many gardeners, and especially those who have wet, poorly drained soil to deal with, treat these Poppies as annuals, and for that purpose sow seed in boxes or pans of sandy soil in gentle heat early in February, subsequently pricking out and hardening off the seedlings so that they are ready for planting out early in May. Plants raised in this way commence to flower in July and continue to do so until well into the autumn. Another method, and one that answers well in many gardens, is to sow the seed outside, where the plants are to flower, about the second week in April, taking care to thin the seedlings early so that they stand about nine inches apart each way. Naturally, these are later coming into flower than those raised under glass in February, but if the following winter is at all favourable they will stand a much better chance of surviving than the earlier-sown ones.

Where the soil is of a sandy nature and, consequently, well drained, there is no doubt that the best results are obtained by sowing the seed outside, preferably where the plants can be allowed to flower, early in July. The resultant seedlings will not flower the same year, but during the May following, and thence onwards well into the summer, they will give such a profusion of blossom as to repay the cultivator for the trouble entailed. Even in gardens where the soil is none too favourable a few should be tried in this way, the making up of a bed of sandy soil going far towards enabling the pans to withstand the winter.

Those who have natural rocks abounding in the garden, or even old retaining walls where a fair amount of soil is available, can scarcely find more suitable flowers for growing there than the Iceland Poppies; in such positions June or July sowing is best. If, as will most likely be the case, the weather is very dry at the time, the soil must be watered frequently until the seedlings are well up and established. These Poppies can now be obtained in a number of beautiful shades, ranging from pure white, through yellow to deep cinnamon red.

PAPAVER.

THE PROPAGATION OF PLANTS.

"HEEL" CUTTINGS AND OTHERS.

I LITTLE thought when I penned the words appearing in *THE GARDEN*, November 7 last, page 541, as to the superiority of the joint-made cutting over that of the "heel," that the subject would have aroused so much interest or received such unqualified support. The endorsement of "H. P.," one of the best trained of the older school of London nursery propagators, is particularly esteemed,



A COLONY OF ICELAND POPPIES. THESE ARE VERY CHARMING HARDY FLOWERS FOR CUTTING.

since so few men have had so wide an experience as he. Of the value of the node or joint-made Carnation cutting over that of the "heel," one has but to compare the two to secure an immediate demonstration of the increased basal area of the former to that of the latter, and seeing that root fibres are presently emitted in proportion to those areas, there is only one logical conclusion to be drawn. Moreover, in the Carnation cutting of the "heel" pattern, there is ever present a short—or long—somewhat contracting neck, which may, or may not, prove a source of considerable danger or impediment to the future progress of

the plant. The danger lies in this contracting neck becoming hide-bound or even partially so, and, if this ensues, it plays the part of a throttle-valve, and no admixture of soils or cultural skill will ever make of such a cutting a really robust, free, continuously developing plant. In the joint-made cutting the same danger is non-existent; hence in this, of a surety, prevention is better than cure.

On the other hand, there are instances, notably among herbaceous perennials, where the "heel" is an essential to successful plant propagation. It is absolutely so, indeed, in the case of hollow-stemmed plants, of which the well-known Larkspur (*Delphinium*) may be cited as an example. Minus the "heel" it is impossible to root a cutting, or, if one perchance did form root fibres, equally impossible to make a plant. The reason is that in these hollow-stemmed plants the reproductive bases in the form of latent eyes or buds are only found concentrated about that portion of the stem which, forming a junction with the main rootstock, is, when severed, known to gardeners as the "heel." Such portions with young shoots attached root freely enough, though it is remarkable how large an interested number quite overlooked this important fact. In hollow-stemmed plants these reproductive eyes or buds do not appear to exist, though they certainly do, if in embryo, in the axils of other plants, e.g., *Phloxes* and *Pelargoniums*.

I suppose it is somewhere about twenty-five years ago—it may be more—since the late Rev. C. Wolley-Dod thanked me, through the medium of a contemporary, on behalf of hardy plant growers generally for disclosing the secret of rooting *Lychnis vespertina* from cuttings. Some years prior—in 1880, to be exact—I had successfully mastered the propagation of *Onosma taurica* from cuttings, and staggered the late Mr. T. S. Ware of Tottenham with a batch of stove pots representing about 150 plants, in which there was not a single failure. Both were exceedingly rare at the time, regarded impossibles from cuttings, and the "secret" of both—though I made no secret of it—was the "heel" cutting. Another plant which answered

to the same method was *Omphalodes Lucilæ*. This was in the spring of 1875. I had then a solitary plant, and, curiously enough, the number of cuttings obtained in my first attempt was thirteen, every one of which had rooted within a month. Indeed, one of the surprises with the above was their ready response, though it has to be admitted that the condition of the cutting and season of the year are important factors in rapid or successful rooting. In a manure frame I have rooted young basal cuttings of the white Everlasting Pea, when a comparative rarity, in eleven days, and though this popular subject

is easily increased from seeds, it is well to know that cuttings of the right sort will root so promptly in the event of a particularly good form turning up.

An interesting experience in respect to *Chrysanthemums* from "heel" cuttings merits recording. Having a small stock of an early flowering novelty I desired to increase, the stools were kept in the greenhouse longer than usual. Every inch-long cutting as it was ready had been secured and inserted *joint-made*. Requiring the space and not wishing to forego the smallest atom of a cutting, I stripped all the remaining shoots off with a "heel" attached and inserted them without more ado. Last rooted, they were also last planted, joining the others in the open quarters. In the result not one of these "heel" cuttings produced stem growth; but instead, first developed a proud leafy shoot, which at a few inches high ultimately reached the dimensions of a dinner plate and became stationary, when, the latent buds below coming into being, a mat of shoots a foot or more across was formed by every plant. There were 150 or 200 of them, not one of which produced either stem or flower. Beside them in the same quarter were between 2,000 and 3,000 others of the same variety propagated from nodal or joint-made cuttings, all of which flowered and gave every satisfaction. As stock plants the smaller lot was valuable enough, though that was no consolation to one who was growing the plants expressly for cut flowers; albeit it was an object-lesson of what *not* to do in the future in like case. The remarkable lateral development referred to I had seen often enough from stock increased from the strong, sucker-like growth of autumn, and when, in addition to gross growth, the standstill during the winter might have been made responsible for much. I had never before, however, seen this lateral development in the *Chrysanthemum* as the outcome of the freshly made cuttings of early spring and with a full season's growth *apparently*—I say it advisedly—*ahead*.

Plant propagation has always had a certain fascination for me, and I have been tempted to give these experiences in the hope that the rising generation of gardeners, not content with "As it was in the beginning, is now and ever shall be," should cast aside, in parts at least, the orthodox yoke, and, believing that there are in the sea as good fish as have ever been caught, experiment in the problems of propagation for themselves, the whole of which, I feel persuaded, are as yet unsolved. E. H. JENKINS.

DAVID'S PEACH.

THIS, *Prunus davidiana*, is the earliest of the ornamental Peaches to flower, the white blossoms frequently opening early in February. It makes a dwarf tree from 15 feet to 20 feet high, and if planted under the lea of a belt of evergreens receives some protection from cold winds, and shows off its wreaths of blossoms to the best advantage. It will thrive in almost any reasonably good soil.

THE MOUNTAIN CLEMATIS.

THESE are few more fascinating hardy climbing plants than the Clematises, or Virgin's Bower as some delight to call them. For many years they have rightly claimed an important position in our gardens, where their rambling flower-laden shoots, tumbling lazily about over pergola or tree, or hiding the face of some more or less ugly building, have endeared them to the hearts of all. Popular as the whole family undoubtedly is, there are a few kinds which stand out as universal favourites, and the doyen among these is undoubtedly the small, white-flowered Mountain Clematis, *C. montana*. This should be planted in a sunny position so that its growth can get well ripened in autumn.

In common with other members of the family, the Mountain Clematis must be planted in soil that is thoroughly drained, and if it contains a

admiration of every passer-by. There must be hundreds of trees about the country that could be made beautiful in this way at a very small cost, providing those who plant remember to keep the roots of the Clematis well out from the trunk of the tree and to place it on the sunny side. Rustic poles, formed of tree branches with side shoots left on, if rammed firmly into the ground, make ideal supports for this Clematis.

Some ten years ago the introduction of a rose-coloured variety of *C. montana* caused a great stir in gardening circles. Hailing from Northern China, where it was discovered by Mr. E. H. Wilson, it has proved perfectly hardy in this country, and although by some considered rather less vigorous than the white species, it is sufficiently strong-growing to quickly clothe a large area. Its botanical name is *C. montana rubens*. Owing to the colour of its flowers, it ought never to be planted against a red-brick wall, but against a pergola, rustic poles or bridge, as



THE ROSE-COLOURED MOUNTAIN CLEMATIS (*C. MONTANA RUBENS*) OVER A RUSTIC BRIDGE.

good quantity of lime, so much the better. If the natural soil is stiff clay, some sand, and, if obtainable, a little peat should be added, so as to make the whole more porous and thus assist the roots in their rambling search for food. Planting may be successfully carried out at the present time. Although the Mountain Clematis is well adapted for planting against walls, and particularly where its growths can run along and hang suspended from a balcony, I never think it looks more charming and natural than when flinging its slender, flower-bedecked shoots over the limbs of some old tree, for preference one with dark green foliage. Grown thus we get an excellent and pleasing contrast, and one that shows off the pure white blossoms to the best advantage. I have vivid recollections of a Mountain Clematis scrambling over an upright conifer by the lodges of a gardening friend, where the twain made a pillar of foliage and flower some thirty feet or more in height that must have been the

shown in the accompanying illustration, or, better still, living trees. A word of warning about pruning may be necessary. All that is required is an occasional thinning of the growths immediately after flowering. H.

A GOOD SHRUB FOR WINTER.

AT the present time, when outdoor flowers are scarce, we appreciate more fully those plants that possess either coloured stems, fruits or foliage. An interesting foliage shrub just now is the Jerusalem Sage (*Phlomis fruticosa*). This is of dwarf character, seldom growing more than 4 feet high, with wrinkled leaves that are, on the under side, covered with greyish white tomentum. The younger branches are also clothed with this woolly substance. It is a shrub that will thrive in almost any garden soil where the drainage is perfect, but in the London district should be given the protection of a wall with a south or south-west aspect. B. G.

GARDENING FOR BEGINNERS.

HOW TO FORCE SOLOMON'S SEAL AND LILY OF THE VALLEY.

MANY novices are deterred from taking up the culture of some of the most beautiful and easily cultivated subjects because they underrate their own ability and also because they imagine difficulties that seldom or never arise. In the present instance it is proposed

good plump crowns in a 5-inch pot. The crowns should be visible above the surface soil, as shown in the illustration. When the crowns have a somewhat shrivelled appearance, it is a good plan to soak them for an hour or two in tepid water before they are potted up; it is most undesirable to keep crowns out of the soil for any length of time. After potting give a good watering in, subsequently standing the pots in a cold frame on a bed of ashes for a few weeks. Cover the crowns with a good layer of moss, after having spread the latter out on the ground and thoroughly moistened it with boiling water to destroy slugs and insects. Introduce the plants to a gentle heat in the first instance, affording a brisk bottom-heat of about 80° later on. Bottom-heat is absolutely necessary to success. So soon as the buds begin to show the white of the blossoms, the pots should be removed from the bottom-heat and the plants gradually inured to a lower temperature. Tepid water should

sprout attained a length of about an inch in the case of kidney sorts, and half an inch in the case of second-early and maincrops, by the end of February.

Tubers for Warm Borders.—At this season it is a good plan to make a selection of tubers for planting on a warm, sheltered border. The best are chosen, placed 2 inches apart in a shallow box, and the space between filled with sifted soil and leaf-soil in equal quantities. This compost should just cover the crowns of the tubers, leaving the sprouts bare. The new roots quickly grow from the base of the sprout and firmly adhere to the compost, which has received one watering through a rosed watering-can. If the boxes can be placed in a house or frame from which frost can be readily excluded, the mass of compost will be filled with roots, and the sprouts will have attained a length of 3 inches in about six weeks' time. Then the tubers must be carefully lifted and planted.

Early Potatoes in Cold Soils.—I find this plan a good one also in the case of cold, clayey soils where early tubers are required for table. Whereas it would be unwise to plant the sets in the cold soil very early, it is an advantage to commence their sprouting in soil in boxes. The actual border planting may be put off until the soil has become warmer. In the meantime the tubers are growing, and the crop is secured earlier than if the tubers were planted without this special treatment direct in the cold, open border. Some temporary protection, with dry litter or other material, may be afforded against late frosts. With regard to the main planting, highly satisfactory results are forthcoming when the seed tubers are given special treatment, so as to secure strong sprouts on firm, green-skinned ones.

I have seen uncared-for sets, after being heaped throughout the winter and overhauled just prior to planting, that have yielded bushels of long, thin, white sprouts which have been thrown away, some of the sprouts being 1 foot long. **GEORGE GARNER.**



CROWNS OF SOLOMON'S SEAL ON THE LEFT AND LILY OF THE VALLEY ON THE RIGHT, SHOWING METHOD OF POTTING.

to deal with the following popular plants, viz., Solomon's Seal and Lily of the Valley. Each of these may be grown in pots under glass quite successfully by any reader who possesses a warm greenhouse.

The first of these interesting subjects is Solomon's Seal, known to botanists by the name of *Polygonatum multiflorum*. It is one of the handsomest of our native plants, and its merits as a pot plant have long been appreciated. The crowns may be potted up either in the autumn or early spring. Early potting ensures early flowering, and that is the only advantage of autumn potting. The crowns may be purchased cheaply, but where this subject is growing in the hardy border they may be dug up during the winter at the convenience of the grower. Solomon's Seal is an excellent plant for the conservatory, but it is well to point out that it does much better in a low temperature than in a high one. The Lily of the Valley-like crowns may be grown in any pots 5 inches or more in diameter. It is a mistake to crowd the crowns in the pots, and for this reason I have depicted on the left of the illustration a few crowns potted up in a 5-inch pot and an ideal specimen crown in the front thereof. Any ordinary light soil will answer the requirements of this subject. See that the soil is worked well round the crowns, and subsequently place the pots in a cold frame or under the bench of a cool greenhouse. They will begin to grow in a very short time, after which they will come on rapidly. Those who have the necessary crowns, and also the accommodation, should pot up a number of the strongest in 10-inch pots.

On the right of the illustration there is portrayed about a dozen crowns of Lily of the Valley potted up in a 5-inch pot. Crock the pots carefully to ensure good drainage, and place twelve to fifteen

be used for watering, and on no account must the soil be allowed to get dry. **D. B. CRANE.**

PREPARING POTATOES FOR PLANTING.

THE importance of having seed tubers well sprouted at planting-time should not be overlooked by cultivators. The "sets" must not be so exposed as to be frozen, else they will be quite spoiled; but if kept in a very cool shed and air and light are freely admitted to them on all favourable occasions, they will be ideal for planting in due course.

From the time when I first had the pleasure and advantage of the friendship of the late Mr. James Clark, the raiser of Magnum Bonum, Clark's Maincrop Kidney and other varieties of sterling merit, I have taken a great interest in the cultivation of Potatoes, and, in a small way, experimented in their culture, mainly in regard to size, shape, the lifting, preparation and storing of the seed tubers. I have found the best results from kidney sets that measured about two and a-half inches in length, and round or pebble-shaped sorts about two inches in diameter, crosswise. In setting up on end the seed tubers it was never a very difficult matter to secure an even lot. Not more than two sprouts to a set were allowed to grow, and if one good sprout was available it was retained, and all others rubbed off quite early. This



POTATO SETS THAT HAVE BEEN SPROUTED IN LIGHT READY FOR PLANTING. NOW IS THE TIME TO START EARLY VARIETIES.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Early Peaches.—Continue to disbud the trees at intervals till all the surplus growth has been removed. Where the fruits have set thickly, many of them may be rubbed off at once, leaving those which are facing the light; but where the fruits are sparse, thinning must not be done hastily. Syringe the trees twice daily in bright weather, and keep a moist atmosphere by damping the walls and floors two or three times a day. See that the trees do not suffer for the want of water at the roots. Old trees carrying heavy crops must be given a stimulant.

Fig Trees in Pots.—The trees which were started in November may now be given a slightly higher temperature, but do not use artificial heat to excess. The forcing should be done by taking full advantage of sunshine. A minimum temperature of 55° will be suitable for another month.

Permanent Trees.—Trees in active growth must be well supplied with water at the roots. Pinch the shoots at the fourth or fifth leaf and remove all superfluous growths. Syringe the foliage vigorously twice daily and keep the atmosphere moist by damping the paths, walls and floor. Prune late trees and thoroughly cleanse them with strong soapy water. If trees are too vigorous, they should be lifted and replanted, giving them plenty of drainage and a restricted rooting area.

Plants Under Glass.

Freelias.—These must now be liberally treated in regard to watering and feeding, or the flowers will be weak. A batch may now be safely moved into a warmer house to hasten their flowering.

Lachenalias.—Keep these growing near the glass in a cool house. When the flower-spikes appear, the plants may be given a warmer house should it be necessary to hasten their flowering. Now that the pots are full of roots, stimulants may be afforded.

Cyclamen.—The old plants may be encouraged to flower for some time yet by careful watering and feeding. Remove old flowers and decayed leaves regularly. Admit air to the house according as outdoor conditions will allow. The seedlings raised last autumn will now be ready for a shift into 2½-inch pots. Plunge the pots in fibre quite close to the glass, or, failing this, stand them on a moist bottom of sand or fine ashes. Syringe the plants twice daily and keep the temperature of the house at 60° or 65°.

Propagation from Cuttings.—The propagation of various plants, such as Crotons, Dracænas and other stove subjects, must now be attended to. Old plants of Fuchsias and Heliotropes may be placed in moderate warmth, where they will make suitable growth for cuttings.

The Flower Garden.

Carnations.—When the ground is dry enough, give the surface a light dusting of soot; then lightly stir the soil with the hoe. In exposed situations a few evergreen boughs placed among the plants will protect them from cold cutting winds and severe frost. Rabbits and game are known to be very destructive to Carnations, and means must be taken to protect them. Keep the lights removed from plants in frames, except during severe weather. They will need little water at the roots, but must not be allowed to become too dry.

Roses.—Some of the more tender varieties, especially those which have been recently planted, will need protection should severe frost set in. Branches of evergreens placed among plants form a suitable protection. Standards or climbing varieties may easily be protected by adjusting the same materials about them by means of string. The pruning of climbing Roses must be brought to a close, or much damage to the young growth will occur.

Violets in Frames.—Admit plenty of air to the plants when the weather is suitable, removing the lights altogether on favourable occasions.

Remove decaying leaves and flowers regularly, and always keep a look-out for slugs. A surface-dressing of fresh soil and manure will be of great benefit to the plants.

The Hardy Fruit Garden.

Apricots.—The training of Apricots to wires needs great care, for the least damage to the wood may be the cause of canker, a disease to which they are very subject. While spurs must be encouraged along the branches, it is also wise to encourage a young growth here and there, as these may be useful for filling up gaps caused through branches succumbing to canker. Trees which are inclined to be too strong should be root-pruned, and when adding fresh soil use plenty of broken bricks and old mortar rubble. Young trees should be lifted. Manures should not be used in making borders for the Apricot.

The Kitchen Garden.

Broccoli.—During mild weather the heads will continue to turn in; therefore the plants must be frequently gone over, removing those which are ready to a cool shed.

Jerusalem Artichokes.—These may be taken up now, so that the ground can be prepared for their cultivation during the coming season. Providing the ground is well manured, this crop may be grown on the same ground year after year. The small tubers may be selected for seed, using the larger ones for culinary purposes.

Globe Artichokes.—During mild weather any protecting material which has been placed over the plants must be removed. Only in the case of very severe frost should the plants be covered.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

Plants Under Glass.

Tree Carnations.—Cuttings which were inserted during December will now be sufficiently rooted for potting up. Pot singly in 2-inch pots and keep in a close frame for about ten days. After this the ordinary conditions of the Carnation-house will suit them if placed on a shelf near the glass.

Caladiums.—An early batch of these may be started into growth now. Shake out of the old soil and place several together in 5-inch and 6-inch pots; then plunge in bottom-heat in the stove. If large specimens are required, the plants must be potted on into larger size pots while the leaves are developing. Let the compost be rich in peat, leaf-mould and coarse silver sand.

Schizanthuses.—Plants raised from a sowing made now will be useful for furnishing the flower-house in midsummer. They will not, however, grow so tall as the autumn-sown plants.

Cypripediums.—These Orchids are of very simple culture, and are valuable winter-flowering plants. Their lasting qualities are well known. The flowering of most varieties will be past, so now is a good time to pot. The compost should consist of good fibrous loam, coarse silver sand, sphagnum moss, and either good peat or Osmunda fibre. For large specimens the mixture should be left in a rather rough state.

Potting Materials.—Plenty of turf and leaf-mould should be got under cover, so that it may be in good order for the large amount of potting that will be done during the next few weeks.

The Hardy Fruit Garden.

Gooseberries.—If the bushes have previously been sprayed with some bud protector, pruning should now be completed. Where bullfinches are rife and the bushes unprotected, pruning had better be delayed for quite another month.

Raspberries.—The splendid season of 1914 produced good canes, which give promise of a heavy crop should the conditions be favourable at the time of flowering. Being strictly a surface-rooting plant, it is unwise to disturb the soil

to any extent where they are growing. Never at any time should forking be done at a greater depth than 2 inches or 3 inches. Well-decayed farmyard manure is most suitable for Raspberries.

Planting.—Before making a new plantation of Raspberries, the ground must have a liberal dressing of manure, which is best dug in some weeks previous to planting. If planted in rows, 3 feet is a good distance to allow between the plants, and 6 feet at least must be left between the rows.

The Kitchen Garden.

Early Peas.—The present will be quite early enough to make a first sowing, which should be done in pots or boxes. If the seeds are to be raised in boxes, sow them on long pieces of turf, which can be readily planted in rows without disturbing the roots. Guard against rats and mice, which are very fond of Peas.

Hot-Beds.—Preparations should now be made for making an early sowing of Carrots, Radishes and Leeks. A hot-bed should be formed of fresh stable litter, to which has been added plenty of clean leaves, turning these over so that they become well mixed. When the bed has been firmly trodden and the frame got into position, some light soil ought to be put in. This should not be more than 4 inches or 5 inches in depth. Sow the seed broadcast, and if room is to spare, a few Lettuces may be pricked out at the same time.

Fruit Under Glass.

Peaches.—Trees in the Peach-house which was started during mid-December will now be mostly set and passing out of flower. Disbudding should be done gradually and with judgment. The trees should receive a good syringing daily, except during sunless weather. Ventilate very carefully, especially while frosty winds are blowing.

Vines.—The second vinery may now be closed, but will not require much artificial heat. A night temperature of 55° to 60° will be ample. Endeavour to keep a fairly humid atmosphere by regular syringing of the Vines and keeping the evaporating pans full of water.

Pot Strawberries are very subject to attacks from green fly and red spider. The green fly can be got rid of either by fumigation or the application of an insecticide, but neither must be used when the plants are in flower. Red spider can be largely prevented by keeping the under sides of the leaves well moistened. If red spider is already in existence, care should be taken not to let the plants come in contact with other plants or fruit trees. As soon as the Strawberries are set, the fruit-stalks should have some support. Thin twigs will be sufficient to hold up the fruit, and each plant should be restricted to five fruits. Frequent applications of liquid manure must be given when watering.

The Flower Garden.

Standard Heliotropes.—Continue to remove side shoots until the desired height of the plants has been reached. As young plants are preferable to old ones, it is a simple matter to grow them each year. Growth is very rapid if the plants are kept in a stove temperature, to which they do not object. Afterwards, when the heads are being formed, they may be given slightly cooler conditions before being finally planted out of doors in June.

The Wall Garden.—When forming a wall garden, the builder should have an eye for the artistic. Formality must be absent. Stones that are porous and of a rustic appearance are best. Try to make the face appear uneven, yet for strength a certain amount of regularity must be observed, leaving occasional stones protruding and others receding. The stones must also be placed in such a manner that they will receive all rains, which will drain in to the roots of the plants. The larger plants are best built into the wall as the work proceeds. This prevents breaking the roots, which would inevitably happen if planted after the building work has been completed. It must be seen that the plants do not suffer from want of moisture until established.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

HYBRID STREPTOCARPUS.

FOR the vast improvement which has taken place during recent years in this charming flower, we are probably more indebted to that veteran florist, Mr. John Heal, V.M.H., to Messrs. J. Veitch and Sons of Chelsea, and to Mr. William Watson, Curator of the Royal Gardens, Kew, than to anyone else, each having done yeoman service in hybridising and popularising this now, I might almost say, universal plant. Not only is there an improvement in the size of the flowers, but almost every shade of colour is present, except yellow. In addition, the length of footstalk is much greater, which renders them suitable for all kinds of floral decorations, and the flowers, fortunately, last for a considerable time in a cut state. Suitably arranged with Orchids, when a proper selection of colours is blended, they make a charming table decoration. I have, during the past fifteen years or so, done what I could to help in the direction of improving what I believe will be for some years to come one of the most appreciated flowers, when its cultivation becomes better known than it is at the present day. One distinct advantage is that with proper care and attention the same plants may be had in flower at least from early April until the middle or end of November. A mistake too often made is that the *Streptocarpus* is treated far too much as a stove plant rather than as a greenhouse subject.

Seed-Sowing.—The seed should be sown early in the new year, either in well-drained seed-pans or pots. The surface on which the seed is to germinate should be fine and made moderately firm, and the seed (which is very minute) scattered evenly over the surface. Press this well in and do not cover it with soil. The whole should be thoroughly moistened by standing the pot or pan in a pail of water to the rim. A piece of glass should be placed over the top, after which transfer it to the shady part of a warm house until germination (which is rather slow) takes place, and subsequently place it near the glass, but shade from bright sunshine. Immediately the seedlings are large enough, prick them into shallow boxes or pans, and grow on in the same temperature, taking care to protect them from bright sunshine.

Treatment of Seedlings.—Directly the young plants show signs of making their second leaf, they should be potted singly in 3-inch pots, which should be well drained, using a soil composed of two parts light loam, the same of well-decayed leaf-soil, and one part of coarse silver sand. These may be grown on in an intermediate house until they become established, always bearing in mind that the *Streptocarpus* is a shade-loving plant, and the foliage must never be allowed to become burnt. They may then be removed to a slightly heated pit, placing them on a bed of ashes as near the glass as possible, shading the latter with white-wash or some other suitable material. The plants must never be allowed to suffer for the want of water. The young plants should begin to flower about the middle of August, and, if a good strain has been selected, it will be found extremely interesting to watch their development. Each one of note should be labelled and these particular plants placed together for growing on the following season.

Treatment of Plants.—All worthless varieties should be rejected. During November and December

the plants ought to be kept in a greenhouse temperature, allowing them to become moderately dry to give them the needed rest, and during January, after giving them a thorough soaking of water, pot on the plants into 5-inch or 6-inch pots. These must be well drained and a few quarter-inch bones placed on the top of the drainage, after which some good fibre, taken from the loam heap, should be placed thereon to prevent the soil clogging the same. The soil for this potting should consist of good fibrous loam three parts, one of good leaf-soil or peat, one also of good silver sand, and a 6-inch potful of finely broken potsherds may be mixed to every half-bushel of soil. Pot very firmly, and start the plants into growth in an intermediate house, but rather err on the side of giving too little than too much fire-heat. Never exceed a maximum of 60°. Raise the plants as near to the glass as possible, be sparing of water until they become well established, and do not damp the foliage overhead, but give plenty of moisture by syringing between the pots, the walls and paths. As soon as the plants have plenty of roots in the new soil, manure-water of medium strength should be given every third watering, and when in full flower this may be increased to every other time. I have found nothing to suit them better than that made from horse and cow manure in equal proportions, to which should be added a small bag of soot. Clay's Fertilizer, by way of a change, is a safe and valuable manure when applied according to directions. To ensure the plants continuing to flower for a long season, the old flower-stalk and seed-pods should be removed, except, of course, any which may be wanted for seed purposes.

Insect Pests.—The two most troublesome of these we have to deal with in relation to *Streptocarpus* are green aphid and mealy bug. The latter should never be allowed to come into contact with the plants if possible, and green fly may be kept in check by fumigating the plants about once in ten days or a fortnight with XL All. The most suitable house for flowering the plants during the summer and autumn months is a low span-roofed one, and during hot weather a moderate amount of air must be given both day and night. The same plants may be grown on for several years, but I have found it preferable to raise young plants annually and throw the old ones away after the second year's growth.

Propagation by Leaves.—The propagation of any special variety may be easily done by means of leaves. This is best performed early in the spring. The midribs of the leaves should be placed round the outside of a pot in some place in a warm house, and these will throw up young plants from the base.

E. B.

SEASONABLE NOTES ON VEGETABLES.

Peas are an important crop. They are more appreciated than any vegetable, except it be the Potato, which is such a universal requirement that it will always rank as of the greatest importance. Those who have the convenience—a cool house—should sow five seeds in 9-inch pots of such sorts as Edwin Beckett, Duke of Albany and The Pilot. Fill the pots to within 2 inches of the top with a rich compost, leaving this space for future top-dressing. Sow in a temporary pit, or a heated one if possible, seeds of an early dwarf variety in rows 15 inches or 18 inches apart,

according to the variety. If a warm border is available, sow seeds of dwarf early sorts in well-prepared trenches 6 inches deep, with light compost in the trench and over the seeds, which will drain off surplus water from heavy rains if the subsoil is heavy in character. This compost will ensure quicker germination of the seeds.

Broad Beans should be sown in drills 3 feet apart on a warm border. The soil should be in as dry a state as possible, or add a compost of lighter material in which to place the seeds, and thus ensure quicker germination. Early Windsor and Longpod are still the best varieties for the first sowings. At the end of this month make a sowing in boxes in a cold frame of the same varieties for planting out to ensure a full crop, as this method sometimes comes in useful in the event of seeds sown in the open in the autumn or in January not coming up successfully.

French Beans.—Those who require pods in February or March should sow seeds of any small-growing variety at once, four seeds in each 3-inch pot, placing them in a temperature of 65°. When the plants show their first pair of leaves, transfer them to 6-inch pots in a light compost. Keep the pots close to the glass in the same temperature by night, with a rise of 10° by day; syringe as the weather permits, and supply the roots liberally with water to prevent an attack of red spider, which is not only injurious to the Beans, but is apt to infest other plants near, Strawberries, for example.

Onions for Exhibition of the Ailsa Craig type should now be sown in boxes of sandy soil made quite firm. Sow the seeds evenly about an inch or so apart. Overcrowding is a mistake, as the plants should grow sturdily from the start. If they once become weakly through being drawn up for want of space, they never regain that robust condition so essential to success. Now that Onions over 3lb. each are yearly produced, it behoves exhibitors to ensure the best results. If the soil is moist at sowing-time, water will not be required for a few days; but on no account must it become dry, or the germinating powers of the seed will be impaired. Place the boxes in a heat of about 60°, such as a newly started vinery or Peach-house affords. Directly the plants show through the soil, stand the boxes on a shelf close to the glass to ensure sturdy growth, and keep the roots well supplied with water.

Carrots of the Short Horn type should be at once sown on a gentle hot-bed in rows 9 inches apart, using sandy soil 6 inches in depth on the leaves or manure employed for the bottom-heat. Keep the frame close until the plants show through the soil; then ventilate carefully to induce sturdy growth. As soon as the plants are large enough to handle, thin them to 2 inches apart. This distance will enable an early pulling of quite young roots, and then leave a full crop to grow to a larger size.

Potatoes.—For the earliest crops place one full-sized tuber in a 10-inch pot three parts filled with light compost in which decayed leaf-mould plays a prominent part. The space at the top is reserved for earthing as the plants progress, and thus keeps the haulm firm and feeds also the surface roots. Stand the pots in a newly started vinery or other structure with a similar temperature. Ringleader, May Queen or Sharpe's Express are good sorts for this crop. For planting in frames later, the tubers should be spread out on end to sprout, thinning the sprouts to two on each as they progress. Too many sprouts are

a hindrance to the best results in all forms of Potato culture.

Radishes.—Wood's Frame and French Breakfast types should be sown in the frames containing the Carrots, Peas and the earliest Potatoes, as the conditions here are most suitable.

Parsley should now be sown in boxes in a gentle heat. Should the supply appear to be running short, prick out the plants in other boxes directly they are large enough to handle, and from here really good plants will be available for putting outside on a warm, sunny border, where a full crop will quickly be available. One variety is sufficient. That should be of a close, thickly curled nature, of which there are abundant types, so many, indeed, that it seems quite unnecessary to grow the badly curled, straggling variety too often grown in gardens.

Leeks.—To have the finest specimens at the end of August or early in September, the seed should be sown in January, as a long season of steady growth is required to obtain the full length of stem which is so much admired, and which is one of the chief features in a perfect specimen. Sow three seeds in a 3-inch pot of light, rich soil, thinning the plants to one in each pot directly the best can be discerned. This ensures a thorough start, the ultimate end being regulated by attention to all necessary details. Stand the pots in a moist heat of about 55° or 60°. Directly the plants show above the soil, the pots should be stood on a shelf close to the glass in the same structure. Water carefully, but little is required for a time beyond occasional syringings overhead during fine weather.

E. MOLYNEUX.

Swanmore Park, Bishop's Waltham, Hants.

NEW PERPETUAL-FLOWERING CARNATIONS.

THE following varieties of Carnations have recently been registered by the Perpetual-Flowering Carnation Society. The particulars have been sent to us by Mr. T. A. Weston, St. John's Road, Orpington, Kent, who is the hon. secretary of the society. He will be pleased to send full particulars of membership to anyone interested in Carnations.

Delice.—Clear pink, Enchantress sport. Award of merit, December 2, 1914. Raiser, Mr. H. J. Dudney, South Road, Erit.

Caprice.—Pale pink, flaked red, seedling. Raiser, Mrs. C. H. Seeley, Wingerworth Hall, Chesterfield.

Grenadier.—Coral red, seedling. Raiser, Mr. W. J. Reed, gardener to the Countess of Derby, Coworth Park, Sunningdale.

Bishton Wonder.—Rosy lilac, seedling. Registered by Messrs. Allwood Brothers, Hayward's Heath.

Wivelsfield White.—Pure white, seedling. Raisers, Messrs. Allwood Brothers.

Colleen.—Salmon pink, seedling. Raiser, Mr. C. Engelmann, Saffron Walden.

Nora West.—Salmon pink, seedling. Award of merit, December 2, 1914. Raiser, Mr. George West, Gables Nursery, Datchet.

Mme. Chas. Page.—Apple blossom pink, seedling; Perpetual Malmaison type. Raisers, Messrs. R. Veitch and Son, Exeter.

General Joffre.—Scarlet sport from Lady Northcliffe. Registered by Mr. George Clarke, Leighton Buzzard.

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

Offices: 20, Tavistock Street, Covent Garden, W.C.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

DOUBLE-FLOWERING CAMOMILE (Grace Gardner).—We regret we are unable to inform you at present where you are likely to get the double-flowered Camomile though doubtless it is still to be found in old-fashioned gardens in many parts of the country. It is true that Belgium has, in the past, been one of the chief sources of supply of this medicinal herb, though it is also grown largely in some parts of Surrey. In the latter, however, if memory serves us rightly, we believe the single variety—usually considered of the best medicinal quality—is that most frequently grown, though it is highly probable that the double-flowered form, owing to a much greater yield of flowers, is that chiefly grown on the Continent. With so many Belgian refugees now in England, that point could doubtless be easily cleared up. As to the plant we have seen in Surrey, we will endeavour to ascertain which it is, and, if successful, will write you further.

TREES AND SHRUBS.

HOLLY BRANCH FOR INSPECTION (S. M. Martineau).—The section of Holly branch sent for examination has been bored out by the larva of a moth. It may have been done by one of two species, *Cossus ligniperda* (Goat Moth) or *Zeuzera æsculi* (Wood Leopard Moth)—which, however, it is not possible to say without seeing the caterpillar.

FRENCH LILAC (F. A. R.).—The name of French Lilac is applied to the common Lilac (*Syringa vulgaris*) and also to the bulbous plant *Muscari comosum* var. *monstrosum*. It may also be applied to other plants. If you send us a specimen of the plant in question when it is in good growth, we shall be pleased to determine the botanical name and advise you as to culture.

MAGNOLIA TO NAME (Garden Lover).—Your plant of *Magnolia grandiflora* may be pruned back fairly hard in April. By severe pruning you will probably lose most of the flowers for one year, but the only way to get the plant back to the wall is to remove the longest branches and tie the others back. By lightly pruning every year, plants may be kept fairly close to walls.

AMPELOPSIS ARBOREA (C. H.).—The plant referred to as *Ampelopsis arborea* is also known as *Vitis arborea*, and is a native of the Southern United States. It is usually most satisfactory when grown against a wall in this country, but it is not easy to obtain. English nurserymen do not appear to stock the plant, and it is likely that it would be most easily procured direct from America. Try Messrs. P. J. Berckmans and Co., Nurserymen, Angasta, Georgia, U.S.A.

DOUBLE-FLOWERING MOCK ORANGES (G. S.).—There is now a very wide choice in double-flowered Philadelphuses. The most vigorous is *P. coronarius* flore pleno. This grows to a height of 6 feet or more, and has a similar habit to the common Mock Orange. *Boule d'Argent*, *Manteau d'Hermine* and *Virginal* are dwarfer, with rather smaller flowers. They grow 4 feet or 5 feet high eventually, but are rather slow, and give the best

results when pruned each year and kept between 3 feet and 4 feet high.

POPLARS FOR AVENUE (South Stafford).—The question as to which of the two trees, *Populus nigra* pyramidalis (Lombardy Poplar) or *P. alba* bolleana (Boll's Poplar), is the better one for an avenue depends more upon the taste of the planter than upon anything else. Both are perfectly hardy and thrive under exactly similar conditions. There is, however, a difference in habit, for, whereas the Lombardy Poplar is usually of columnar outline when mature, Boll's Poplar is, as a rule, pyramidal in habit. The Lombardy Poplar often branches from near the ground, while the other kind has usually a section of clear trunk. Of the two the head of Boll's Poplar is rather looser than that of the other. Boll's Poplar has a slight advantage over the Lombardy variety in the fact of its having greyish bark and greyish leaves, which give it a lighter appearance. The main differences are as stated, and there is little to choose between the two. Boll's kind perhaps has the advantage in the fact that it is more uncommon than the other kind. Select straight, sturdy trees with clear and distinct leading shoots, and be sure to notice that the roots are well furnished with fibres, as those trees with plenty of fibrous roots transplant more satisfactorily than others which may have a few thick roots only. The cause of Lombardy Poplars becoming bushy and not growing well in height is that the leaders have not been kept clear of rivals.

THE GREENHOUSE.

CHRYSANTHEMUMS TO BLOOM AT CHRISTMAS (Constant Reader).—In addition to the varieties you name the following should be grown: Mrs. W. Buckbee, Niveus and Mrs. David Syme, white; Nagoya and December Gold, yellow; A. J. Balfour, pink; Heston Pink; and Tuxedo, bronze and orange. The last-named may be had in bloom till as late as the middle of January, and also Godfrey's Perfection, a pure white Anemone-flowered variety that is very free and fragrant. Of singles, Wellesbourne Beauty, yellow, and Mme. Melba, cream, flushed pink, are good late sorts. Of feathery varieties, Mrs. W. Butters is the best late white. White Mrs. Filkins and Cheveux d'Or, yellow, are good. Cuttings should be propagated from early in January to the end of February. The best results do not accrue from high cultivation in the case of late varieties. Use good loam, pot firmly and feed moderately, so as to produce firm wood during the dull days of autumn.

TREATMENT OF POINSETTIA PULCHERRIMA AND PLUMBAGO ROSEA (Enquirer).—When the bracts of *Poinsettia pulcherrima* are faded, they should be cut off and the plants placed in a structure where a temperature of 50° to 60° is maintained. They must then be kept dry, but not absolutely parched up, in order to give them a season of rest. Then during the latter part of April they should have the soft portions of the shoots cut back, and the plants placed in a warmer structure, giving them water at the roots and an occasional syringing. This will lead to numerous young shoots being pushed forth, and when these are nearly three inches long they will be ready to be taken as cuttings. The cutting should be formed of the entire shoot, with its swollen base just where it starts from the old wood, as from this spot roots are freely produced. Each cutting must be inserted in a small pot, which must be clean and well drained. A suitable compost for the cuttings may be made of loam, peat or leaf-mould and sand, the whole being well rubbed through a sieve with a quarter of an inch mesh. The cuttings must then be plunged in a gentle bottom-heat in a propagating-case, where, if care is taken not to over-water, they will soon root. When rooted they must be exposed to the ordinary atmosphere of the structure in which they are to be grown. A minimum temperature of 60° is very suitable for them then. They will soon be ready for shifting into pots 5 inches in diameter. A suitable soil for *Poinsettias* is good loam, lightened by an admixture of leaf-mould, dried cow-manure and sand. When the weather gets warm, the plants may be placed in a frame and inured to air and light in order to induce a sturdy growth. By some the plants are again shifted into 6-inch pots, but, in any case, as the pots get full of roots, weak liquid manure must be occasionally given. Though *Poinsettias* may be kept in a frame during the summer, they must not be left there too late in the season, otherwise the bottom leaves will turn yellow and drop. Early in September they should be placed in a structure where an average temperature of 60° is maintained. As soon as the bracts are seen, they will be increased in size if a little additional heat is given. When developed they keep better in a cooler and drier atmosphere. Though *Poinsettias* are usually grown annually from cuttings, the old plants may readily be grown and flowered a second or third year. Those intended for growing on should be cut back harder than those needed to supply cuttings. A good plant will produce several shoots, and, as each carries a head of bracts, a bold, showy specimen will be the result. These old plants may be grown in pots 6 inches, 7 inches or 8 inches in diameter, according to their vigour. Specimens such as these are especially valuable for grouping in the conservatory or for similar purposes. *Plumbago rosea* should, after the flowers are over, be cut back into shape, but not too hard. In an intermediate temperature young shoots will soon be pushed forth. When these are about half an inch long, the plants may be repotted, a clean, well-drained pot a size larger than before and a mixture of loam, leaf-mould and sand being very suitable for them. Their after-treatment may be much the same as that advised for *Poinsettias*. Should it be desired to increase the stock of this *Plumbago*, cuttings from 2 inches to 3 inches in length may be put in as soon as they are obtainable

and, grown on like Poinsettias, they will make neat flowering plants by the winter.

IVY-LEAVED PELARGONIUMS AND PLUMBAGO CAPENSIS (H. D. M.).—The Ivy-leaved Pelargoniums should be wintered in a light structure where a minimum night temperature of 45° or thereabouts is maintained. Of course, the thermometer will run up higher during the daytime, but a free circulation of air should be given whenever possible. With regard to watering, enough water should be given to keep the soil slightly moist, but an excess must be strictly guarded against. This does not mean that you are to give water in little drops, but to wait till the soil is nearly dry, and then give enough to moisten the whole of it. In an ordinary greenhouse about every three weeks would be quite sufficient, but with regard to time no hard-and-fast rule can be laid down, as so much depends upon the house itself, the weather experienced, and other matters. Watering when required should be carried out in the morning, as then there is sufficient time to dry up any superabundant moisture. For this reason a fine day should be chosen on which to water the plants. By no means should the plants be watered during sharp frosts, as it is much better to leave them dry when the weather is severe. In this way the plants will safely pass through the winter in a quiet condition, and will start freely into growth when the spring comes round. The Plumbago will, in a greenhouse, pass through the winter in a quiet state, and many of the leaves will frequently die off. You state that your plant was pruned in the beginning of December, but is not doing very well. You cannot expect it to start into growth in the depth of winter; indeed, the quieter it is kept at that season, the more vigorous will be the growth when the proper time comes round.

ROSE GARDEN.

SPRAYING ROSES WITH COPPER SULPHATE (W. T.).—One spraying should be sufficient for Roses against mildew, using a pound of copper sulphate to twenty-five gallons of water, and it should be done before the buds burst, otherwise it is likely to do them harm. Pruning away the parts affected in previous years should be a great aid in keeping them clean.

GLOIRE DE DIJON PLANTED IN NOVEMBER, 1913 (Rustie).—It would have been best had you cut back the plants to about two feet in the spring of 1914, but as one has good growths inside, it would be advisable to leave it alone this season, merely tipping the growths. The other plant cut back to about six inches in March; it should then send out good canes next summer.

STANDARD ROSES FOR NORTH GARDEN (D. C.).—Your conditions are too exacting, and we fear you will not obtain all you want. Many Roses that would do are not fragrant; others that are fragrant have not a long season of flowering. Then, again, there are few really orange and copper Roses that are fragrant. We give the following good varieties as near your requirements as possible: Mme. Abel Chatenay, Conrad F. Meyer, Laurent Carle, Gloire de Dijon, Bouquet d'Or, Juliet, Mrs. D. Jardine, General Macarthur, Liberty, Mme. Jean Dupuy, Soleil d'Or and Duchess of Wellington. The plant you have as Hugh Dickson is no doubt wrongly named.

ROSES FOR FRONT ROW (L.).—We advise you to plant The Lyon Rose in the front row, and in place of this variety substitute Cissie Easlea, a good mildew-proof Rose, admirably adapted to plant in the position mentioned. Then in the front row, following The Lyon Rose, we can recommend Mme. Leon Pain, Lieutenant Chaire, Souvenir de G. Prat, Countess of Shaftesbury, Molly Sharman Crawford, Mrs. Edward Powell and Duchess of Wellington. We have avoided the sorts you say you have already, namely, Mme. Ravary, Mme. A. Chatenay, Prince de Bulgarie, Caroline Testout, Frau Karl Druschki and Hugh Dickson. Should you desire any other varieties, we can strongly recommend Louise Catherine Breslau, Ophelia, Marquise de Sinety and Melody.

KITCHEN GARDEN.

TOMATOES IN BOXES (Grace Gardner).—The boxes you refer to would certainly not be too large, probably the reverse, seeing that the Tomato is a very gross feeding subject. The size of the receptacle is, however, but one item of the programme, and a good soil mixture, with ample top-dressings and artificial manures when the fruits are set and swelling, are of equal, if not even greater import. We have never yet had any occasion to thin the fruits, the usual experience being that they do this themselves, the swelling fruits leaving the others behind. When it is observed that the fruits are well set and swelling, then you may begin feeding and top-dressing, gradually at first and subsequently more liberally. By earthing up above the box with good turfy loam, the top-dressings will greatly assist the productiveness of the plant, particularly if liquid manures are used in conjunction therewith.

HOW TO GROW SMALL, CRISP CELERY (Mrs. F. R. Clarke).—Growers of vegetables generally favour the growth of large specimens of most kinds, although it is well known among most of them that by doing so quality to a serious extent is sacrificed and much waste in Celery, as in other things, occasioned, as a large number of the leaf-stalks of these huge specimens are thrown away. In the first place, varieties have some bearing on this question. Some are large, and others of medium growth to small. These latter are the best to grow for home consumption. The best among these are Sandringham

White and Major Clarke's. Other causes are applying too much manure to the soil and planting too far apart. Too much feeding with highly stimulating liquid manures will help to produce the results complained of. Caution has to be exercised in not running to the other extreme of not applying enough manure to the soil, as a crop of good quality Celery cannot be grown without a generous application of manure. The best and most economical way of growing Celery, especially if moderately small plants are the desideratum, is to plant in beds rather than in single rows. Such beds should be 5 feet wide and 10 inches deep (the soil taken out of the bed to be banked by its side to come in for earthing up later). The rows should be planted across the beds and be 15 inches apart, and the plants in the row 6 inches apart. Celery is a moisture-loving plant, and during dry weather must be copiously watered.

MISCELLANEOUS.

LAWN THIN IN PLACES (M. M. K. C.).—You cannot do better than rake as much as possible of the moss out of your grass at the present time; then, during the early part of March, prick over all the bare places with a fork and sow new seed, afterwards giving the whole lawn a good dressing of fine rich soil. It is too early to sow fresh seed now.

VARIOUS QUESTIONS (Hants).—Makers of small propagators.—W. Pearce and Co., 648, Holloway Road, London, N. Spanish Iris.—When the plants are well up, a dose of weak liquid manure about once a fortnight will be helpful. Care must, however, be taken not to give an excess of stimulants. Tuberous Begonias.—There is no advantage in starting the tubers of Begonias in Cocoanut refuse; indeed, it is very much better to start them in some good soil, such as two parts of loam to one of leaf-mould and a liberal sprinkling of sand. The tubers should be potted at the end of February or early part of March. Pots 4 inches in diameter are very suitable for them, and, in potting, the tubers should be put at such a depth that they are just covered with the soil. They must not have much water till they start into growth, and only need the temperature of an ordinary greenhouse, that is to say, from 45° to 50°, increasing, of course, as the days lengthen and the weather gets warmer. It is very essential that the plants are well hardened off before they are bedded out at the end of May. After April a cold frame is the best place for them, just throwing a mat over the light in the event of frosty nights and giving plenty of air during the day.

NAME OF PLANT.—D. W., Surrey.—Chimonanthus fragrans.

SOCIETIES.

SOUTHAMPTON ROYAL HORTICULTURAL SOCIETY.

ANNUAL MEETING.

The annual meeting of this society was held on Monday, the 11th inst., in the Council Chamber, the Mayor, Alderman W. Bagshaw, presiding over a satisfactory attendance. The Mayor spoke of the influence of the war upon the society, complimenting the members upon the fact that their operations had not been affected financially. The annual report stated: "Owing to circumstances arising from the war your Council, in common with many other societies, deemed it prudent to abandon the autumn show. Had the exhibition been proceeded with, it would probably have resulted in a considerable loss. Arrangements have been made to hold three shows in 1915. The Council will use every effort to carry through this programme. The Rose show held at South Stoneham last July was again a financial success. The balance sheet showed a highly satisfactory balance of £50 4s. 3d., in addition to which, as the secretary mentioned at a later stage, a debt of £25 had been liquidated from last year." The chairman of the Council, Mr. Molyneux, presented the report, and spoke gratefully of the support given to the society by Ellen Lady Swaythling in allowing the Rose show to be held at South Stoneham House, and by Lord and Lady Swaythling. The society was also indebted to Lord and Lady Northbrook, the latter of whom opened the summer show, and to the donors of special prizes. Mr. A. W. Oke seconded, expressing his gratification at the condition of the society as shown in the report. The finances were, he noted, in a highly satisfactory state. The report and accounts were adopted. It was decided, at the suggestion of Mr. Molyneux, to give donations of five guineas each to the Royal Gardeners' Orphan Fund and the Gardeners' Royal Benevolent Institution out of the funds of the society.

The re-election of Lord Swaythling as president was proposed by the Mayor, Mr. E. Kemp Toogood seconding and speaking of Lord Swaythling's close personal interest in the society's affairs. The members agreed. The vice-presidents, a lengthy list, were re-elected, with the addition of Sir J. Beetham Whitehead of Eford Park, Lymington, and Mr. Maldwyn Drummond of Cadlands. Other elections were as follow: Hon. solicitors, Messrs. Green, Moberly and Green; chairman of Council, Mr. H. E. Molyneux; vice-chairman of Council, Mr. D. Desborough; hon. treasurer, Mr. A. G. Thompson; secretary, Mr. C. S. Fuidge (who was first appointed to the post in 1873); members' auditor, Mr. A. J. H. Marshall; Council (a third of its strength), Messrs. F. Chandler, T. Hall, F. Green, A. J. Marsh, A. Tofield and F. J. Hendy.

BIRMINGHAM AND DISTRICT GARDENERS' MUTUAL IMPROVEMENT ASSOCIATION.

ANNUAL MEETING.

THERE was a large gathering of members at the Athletic Institute on Monday, the 11th inst., it being the annual meeting. The proceedings opened with the reading of the minutes of the previous meeting, followed by the secretary's presentation of the 1914 balance sheet and report. On examination these disclose the receipts during the past year to be £34 11s. 3d. (including the balance of £4 9s. 4d. brought forward from 1913) and the expenditure as £30 6s. 4d., thus leaving at present in hand a balance of £4 4s. 11d. The assets of the society were also proved at £349 6s. 4d. Afterwards the election of a committee for the current year took place, ballot papers being handed to each individual member. Out of the twenty-two nominations, sixteen were eligible for election, and the voting resulted in the return of Messrs. R. Usher, P. Catt, J. Markham, J. Palmer, R. T. Parker, A. D. Christie, J. Higley, T. Humphreys, S. Smith, H. Ford, C. H. Herbert, A. Cryer, A. B. Brown, J. Webb, W. Spinks and W. L. Deedman as the executive for 1915. Having obtained a committee for the year, the appointment of officers was the next consideration. Eventually, in spite of the withdrawal in turn of these six who had so ably served for 1914, Mr. C. H. Herbert was prevailed upon to again act as chairman, Mr. A. Cryer as vice-chairman, Mr. A. R. Brown as librarian, Mr. J. Webb as assistant-librarian, Mr. W. Spinks as treasurer, and Mr. W. L. Deedman as secretary, so that the society has once more assured itself of the good services of these gentlemen. A recent revision of the library had entailed much extra trouble to the librarian and his assistant, and as a recompense a much deserved vote of thanks was tendered to them. Also the kindness of the Press was by no means overlooked, for during the past year it had upon several occasions rendered valuable assistance, for which the society is deeply indebted. A formal vote of thanks was proposed by Mr. Herbert and seconded by Mr. Spinks. Before the meeting terminated, a sympathetic reference was made by the chairman touching the death of Mr. W. B. Latham. Not only had the deceased been a trustee of the society, but he was also the society's first chairman, and it is with deep regret that the intimation of his death is received.

SCOTTISH HORTICULTURAL ASSOCIATION.

WITH the notice of the annual general meeting of this association on January 19, the usual abstract of accounts for the year ending December 31, 1914, has been circulated among the members. The Chrysanthemum show accounts exhibit an income of £1,079 5s. 4d., including £360 4s. 3d., the net takings from the sale of plants, &c., at the stalls arranged for the Red Cross and Belgian Relief Funds. Donations came to £90 2s. Takings at the gate and tickets sold amounted to £526 9s. 4d. On the other side of the account, awards, including medals and engraving of cups, accounted for £250, and music came to £225. Other items of expenditure brought the expenses up to £788 13s. 5d., leaving the highly satisfactory balance of £290 11s. 11d., of which amount £145 6s. went to the Red Cross Society and £145 5s. 11d. to the Belgian Relief Fund. The association is to be congratulated on this most successful result. The ordinary revenue accounts are less satisfactory, as there was a deficit on the year's working of £26 2s. 1d., but the expenditure included an item of extraordinary expenditure of £10, this having been voted to the Extension Fund of the Edinburgh and East of Scotland College of Agriculture, while the funds suffered from the entire net proceeds of the Chrysanthemum show being devoted to the relief funds above mentioned. The ordinary income, which includes £160 14s. from members' annual subscriptions, amounted to £215 19s. 8d. In the capital account depreciation is allowed on stocks held by the association. The Horticultural Institution Fund account shows that this fund, after allowing for depreciation of stocks, now stands at £1,615 3s. 3d. against £1,493 18s. 7d. the previous year. The Benevolent Fund accounts show a credit balance of £12 19s. 10d. The whole position reflects great credit on the management.

DUMFRIES AND GALLOWAY GARDENERS' ASSOCIATION.

AT the usual meeting of this association, held in the Wesley Hall, Dumfries, on January 9, a series of questions and a discussion thereon occupied the meeting. Mr. S. Arnott occupied the chair. Mr. W. Hutchinson reported that the amount collected for the Royal Gardeners' Orphan Fund had been sent, and produced the treasurer's receipt for the same. The questions asked by the members were then drawn by lot and a discussion took place upon each, practically the whole of the members present taking part, and a most interesting and useful evening was spent.

GLASGOW FRUIT TRADE BENEVOLENT SOCIETY.

The Glasgow Fruit Trade Benevolent Society's annual meeting was held in Glasgow on January 11. The president, Mr. J. H. Thomson, occupied the chair, and remarked upon the favourable position of the society, there being an increase in membership and in funds, while there had been no claims by members during the year. Equally satisfactory reports were given by Mr. J. Russell, treasurer, and Mr. H. Stuart Girvan, clerk, that of the treasurer showing that the funds stood at £1,220 13s. 5d., this being a gain of nearly £120 upon the previous year. Office-bearers were appointed, these including Mr. John H. Thomson, president; Mr. James Gardiner, vice-president; Mr. James Russell, treasurer; and Mr. H. Stuart Girvan, clerk and collector.

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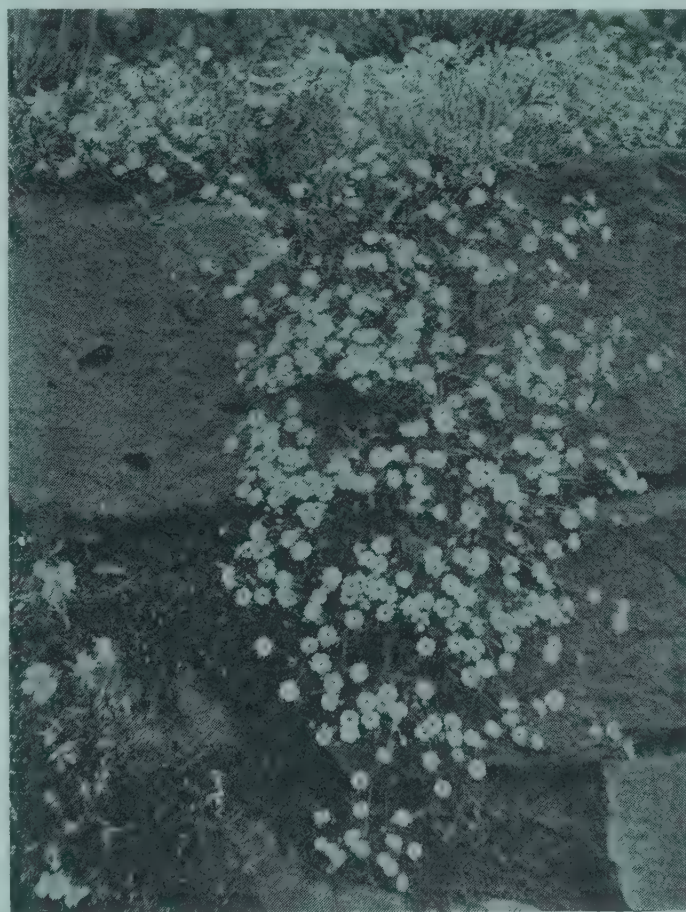
NOTES OF THE WEEK.

Our Sub-Editor at the Front.—The following letter, dated January 15, from our Sub-Editor, Mr. H. Cowley, who is serving with His Majesty's army in France, will, we think, be of interest, especially the reference to the glow-worms and violets: "In spite of the shortage of labour, the farmers seem to have their land in remarkably good condition. The soil around here is fertile and of great depth, although waterlogged in places owing to the heavy rains. These are points brought home to us very forcibly in our trenching operations. By the way, one point that strikes me as curious when trenching at night is the number of glow-worms giving off that vivid phosphorescent light which I had always associated with summer-time in England. There are signs of an early spring, if one can be guided by the forward condition of the buds of certain trees. This morning, while in a sheltered copse, I came across a party of French boys with their caps full of fragrant Violets! This is a puzzling time for a naturalist who would fain write of peace in time of war. Before leaving England I was much impressed by a sentence in a book I was then reading: 'The people who cannot, or will not, be as men in the duty of battle can hardly be as men in the security of peace.' Although our life is a hard one, there is not a man among us who would return to his occupation, however delightful that may be, until his duty at the Front has brought about peace with honour."

Apples for Wounded Soldiers.—We are pleased to learn from the Hon. G. Eden, whose appeal for Apples for wounded soldiers in the Victoria Hospital we published in our issue of January 9, that sufficient for the needs of the soldiers there have been supplied by our readers.

Snow on Evergreen Trees and Shrubs. The heavy fall of snow experienced in many parts of the country on Friday last calls for a word of advice to those who have evergreen trees or shrubs in their gardens. Owing to the density of the foliage of many of these, the weight of snow that lodges on the branches is a source of considerable danger. Some years ago we saw several very fine old Cedars with large branches broken off by the weight of snow. Wherever practicable, steps should be taken to remove the snow as quickly as possible. With large trees this is naturally difficult, but with young ones, and also choice shrubs, the task is an easy one.

The Day Lilies in Pots.—Although the various kinds of *Hemerocallis* are seldom seen as pot plants, they are excellent for this purpose, and will be found very valuable where a large supply of flowers is required to keep the greenhouse or conservatory gay at all seasons. They give little trouble and afford a pleasing variety. Although the individual blooms may only last a day, a succession is kept up for a considerable period. Where there are clumps established in



GYPSOPHILA REPENS GROWING IN A DRY WALL. IT HAS WHITE FLOWERS AND GREY FOLIAGE.

the open ground, they should be lifted now, potted into suitable sized pots, and placed in a cold frame. All that is necessary is to water the plants when required, and as the roots get active a little liquid manure will be beneficial.

Help for Aged and Infirm Gardeners.—At a period such as this, when so many calls are being made upon the purses of the charitable, we hope that our readers will do their utmost to support

the Gardeners' Royal Benevolent Institution. From the report of the annual general meeting, held on Thursday of last week, which appears on another page, it will be seen that only fifteen out of the sixty-two thoroughly deserving candidates could be elected for pensions. This Institution, which is non-political and non-sectarian, was founded seventy-five years ago, and since then has distributed many thousands of pounds in the form of pensions to aged or infirm gardeners, or their widows. We have no hesitation in saying that the Institution is run on extremely economical lines, and anyone who can possibly subscribe to its funds should do so. We noticed in the report that several owners of gardens during last summer opened these to the public, making a small charge for admission, the money thus obtained being sent to the secretary, Mr. G. J. Ingram. His address is 92, Victoria Street, Westminster, and he will be pleased to furnish anyone interested with full particulars of the work of the Institution.

A Charming Wall Plant.—*Gypsophila repens* is an indispensable dwarf subject of prostrate growth, succeeding on any well-drained, sunny slope of the rock garden or showing to singular advantage when draping the face of some sun-exposed dry wall. It forms close mats of prostrate stems, abundantly clothed with narrow, sharp-pointed leaves of a grey green hue. It is also typical of the Gauze Flowers in the hazy effect produced by the innumerable small, starry blossoms that are borne on the terminal shoots and branch out so as to almost completely hide the leaves. In the type plant the flowers are invariably white, but when raised from seed these show many small variations in form, which, although minute in detail, are sufficiently pronounced to give distinction to the best forms, and is most readily appreciated where they afford ready means of comparison, as in dry-wall garden-

ing. *Gypsophilas* are frequently spoken of as chalk plants, owing to their remarkable vigour in soils containing this substance, the species under notice being no exception. It is readily propagated by cuttings taken during August and inserted in sandy soil in an unheated frame, or seed sown in the autumn or spring germinates freely and yields plants that flower the following year.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Benthamia fragifera Fruiting in Surrey.—

In reference to your note on this shrub, page 23, issue January 9, it may interest you to know that a plant in the garden of the late Miss Ewart, Coneyhurst, Surrey, bore fruit last year. It has been planted eight years, and did not flower until 1913. It is quite hardy there, planted on a lawn sloping to the south-west. There is also a plant at Viscount Alverstone's place which also flowers and fruits.—H. S.

Cabbage Little Gem.—I commend this choice little Cabbage to other amateurs who, like myself, have small space for vegetables. I use it as an autumn Cabbage, and have been cutting it from November till now. It takes very little room in the garden, having few waste leaves; but its great merit is its quality. It is a Cabbage for the gourmet, not for the gourmand. It has only one fault—it makes one discontented with every other Cabbage until the harbingers of spring appear again upon the table.—ANNE AMATEUR.

Cuttings with "Heels."—Having seen in THE GARDEN notes on the subject of taking cuttings with "heels" or without, I write to tell you my experience with wickuraiana and multiflora Rose cuttings. I have always been interested to strike some in old medicine bottles in the house. I cut them about eight inches or nine inches long with a heel, and about four inches to five inches of each cutting is in water. In almost every case the cutting roots at every bud where I had stripped off the leaves, and never at the heel. Very often it does not root within 2 inches of the heel. When well rooted and potted up in sand and leaf-soil, the cuttings soon make excellent plants. I cut off the bit of wood below where the first roots start. I gather from this experience that with Roses a heel is useless.—G. T. PORTMAN DALTON, Fillingham Castle, Lincoln.

The New Zealand Flax at Home.—In your issue of April 18, 1914, you have a paragraph from a correspondent re New Zealand Flax which is somewhat misleading, to the effect that its natural habitat is on "land subject to winter inundation, and on sandy and shingly river banks." I have lived on the south end of New Zealand for the last fifty-six years, and when I was a boy many places in Dunedin were covered with Flax, and from the variety of places it grew I would say it will grow (here at least) on almost any land. The largest and most prolific plants I have seen, however, grew on stiff clay land above any inundation. They were so high and thick that children could get lost among the plants or bushes. I have grown it in my garden, where it thrives almost too quickly, as it soon took up too much space. I have in my present place new, young bushes, plain green, variegated and brown, on the side of a steep incline, where it is necessary to use water-hose for growing vegetables.—J. BEADLE, Dunedin, New Zealand.

Shows, Schedules and Judges.—"Exhibitor's" letter, page 26, issue January 16, will do much good if it is the means of inducing committees who are engaged in drawing up schedules to be as explicit as possible in the wording of the various classes, so as to make the conditions as plain as possible for the benefit of exhibitors and judges. Too many words are used in defining some classes,

at the expense of clearness. Judging from considerable experience of the framing of schedules and shows generally, I find that the members of committees, who are well versed in their work, always try to improve and profit one year from the previous year's experience, and so on. With one or two exceptions, committees I have worked with have always tried to obtain the services of judges who are experts in the work they are called upon to do. There may be, and undoubtedly are, exceptions in many other instances, and they should be reduced to vanishing point. "Exhibitor" seems to be rather hard on committees in reference to trade exhibitors, but he may have evidence of importance to bear him out. My experience is that trade exhibitors have had full consideration because the value of their exhibits was realised. More help would be given, undoubtedly, if it could be afforded. I would like to add that all concerned should now do their utmost to work together in the near future in view of the conditions obtaining through the war, and so keep all matters connected with gardens and the interest in them more firmly impressed on the public mind. Well-managed shows have a great influence for good.—GEORGE GARNER.

MY GARDEN OF HOPE.

("It is the time of seed catalogues. They are heaped beside my elbow as I write. Are the seed-growers a little 'previous' this year, or is it that we, somehow, are not quite ready for them?")

You have brought me a touch of the Spring

When dull hearts for its freshness are aching :
There's a fragrance wrapped up in your leaves

And a sigh from the season that's waking :
In a stamped, sealed and signed envelope,
You have brought me my Garden of Hope.

Here's a border of Pansies and Pinks,

There's a bunch of Sweet Peas for the picking :
A lavish reward for slight cares

Of sowing, transplanting and sticking !
There are Larkspurs and Lupines galore,
And Gilliflowers . . . close at my door.

You have brought me a touch of delight,

Just when hearts for its promise are pining :
With catalogues heaped at my side

Plots, borders and beds I'm designing :
It's fine for the Springtime to wait,
With your hand on the latch of her gate !

ELIZABETH KIRK, in *Country Life*.

Ginkgo biloba.—Your correspondent "J. H. D." asks in your issue of January 16 what the French call this tree. According to Loudon it is known as *Arbre aux quarante écus*, and he states that the origin of this curious name was that a M. Pétigny in 1780 bought five of these trees from an English gardener for about forty crowns (*quarante écus*) each, and introduced them into France (see Loudon's "Arb. and Frut.," IV., 2096). Carrière also gives the name as a synonym, but places the introduction earlier. May I add that there is a very beautiful specimen of the pendulous form in the Champs Élysées in Paris. In the early summer, when the leaves are fresh, the tree presents much more the appearance of Maidenhair Fern than the rather stiff habit of the type. The tree stands in a somewhat secluded spot behind the Grand Palais. I have unsuccessfully attempted to photograph it more than once, but any of your readers who care to find it out will, I think, admit that it presents a most graceful appearance.—G. W. E. L.

A Hedge of Sorts.—In reply to "Anne Amateur's" enquiry in THE GARDEN of January 9, page 14, the following four Crabs are very beautiful: *Pyrus coronaria flore pleno* bears the largest flowers. *P. floribunda atrosanguinea* bears a mass of bloom and small fruits. *P. Malus neidzwetzkyana* I think the best; crimson blossoms, followed by crimson fruits. *P. Scheideckeri* is of rather stiff and rigid growth, but bears exquisite flowers, followed by small fruits. Crab John Downie is very good, both for its bloom and its brilliant fruits, which make excellent jelly. May I suggest for autumn and winter colour *Quercus coccinea* (Waterer's variety), the Scarlet Oak, *Amelanchier canadensis* (Snowy Mespilus), Japanese Cherry James H. Veitch (double rose), *Cytisus scoparius præcox* (the buff-coloured Broom), *Forsythia suspensa* (yellow flowers in March), *Halesia tetraptera* (Snowdrop Tree); varieties of *Philadelphus* (Mock Orange) *Fantaisie*, *purpureo-maculatus*, *Satsumi* and *Voie Lactée*; *Rhus Cotinus purpurea* for autumn colour, *Ribes atrosanguinea*, *Rubus deliciosus*; *Spiræas Aitchisonii*, *arguta* and *Thunbergii*; *Syringa* (Lilac) varieties *alba grandiflora*, Dr. Lindley, *Souvenir de L. Späth*, *Mme. Lemoine* and *President Grévy*; *Viburnum plicatum* (Japanese Snowball Tree) and *Weigela Eva Rathke*. These are deciduous.

The following are evergreen: *Cistus* of sorts, *cyprius* and *ladaniferus* (Gum Cistus), *Cotoneaster pannosa*, *Elæagnus glabra folio-variegata*, *Olearia stellulata*, *Rosmarinus* (the common Rosemary), *Viburnum rhytidophyllum*, *Bamboos Arundinaria nitida* and *Phyllostachys aurea*, and *Buddleia variabilis magnifica* (should be cut down every spring). These are selections from a "hedge of sorts" now four years old.—C. ECHLIN GERAHTY.

Crinum Powellii.—It may interest your correspondent, whose notes have appeared recently, to know how *Crinum Powellii* may be made to thrive and flower abundantly in North Yorkshire on a very cold clay soil. It is first to be remarked that frost penetrates the ground to a much greater depth in light, sandy soils than in stiff clays, and in the summer the sandy soil warms up much more readily than the clayey soil, so that those who live on warm, sandy soils must plant their *Crinums* deeply. I have myself seen newly planted bulbs rot after severe frost, even when planted more than a foot below the top of the bulb, in Surrey. On the contrary, a bulb planted deeply in cold clay soil may exist, but will start so late that flowering will come late, and most probably not at all. With these data in view, I planted a good bulb of *Crinum Powellii* seven years ago at the foot of a south wall absolutely above the ground-level, merely digging and manuring and sanding the soil, mounding up the soil round the bulb to a height of 18 inches above the level, and then putting some stones to keep the fresh soil in place. With the protection of a little litter and manure in the winter, no plant could succeed better or flower more freely than this has done. Another bulb I planted deeply in a south border. It existed and, indeed, grew fairly well after the month of June had warmed the soil, but it only once succeeded in flowering in September, and I have now taken it up and potted, it to replant above the surface in the spring. This will explain why some may recommend deep planting and others surface planting. As a matter of fact, the surface-planted bulbs do, after some years, pull themselves down by their strong roots deeply into the ground.—EDWARD H. WOODALL.

English and Irish Roses in Southern Scotland.—The Rev. David R. Williamson writes: "After the middle of May the garden of Kirkmaiden Manse, with whose culture, adequate or otherwise, I have been so long identified, will pass into other hands. I will not be far away from its precincts, however, and will probably be able to record from time to time in the columns of *THE GARDEN* its floral achievements. I will also do my utmost to imbue my ecclesiastical successor with my own love for horticulture. For some time past I have been planting many of the latest Rose introductions in the garden at Kirk House, Kirkmaiden, where I will be residing by the beginning of June. Notable among these are such superbly endowed varieties as Majestic, from the famous nurseries at Waltham Cross; the exquisitely beautiful Lady Clanwilliam and its fair companions Brilliant, Mrs. Archie Gray, William Cooper and Mrs. James Lynas, raised by Mr. Hugh Dickson of Belfast; Mayflower (a greatly improved *Devoniensis*) and other precious varieties from Mr. Prince of Oxford; Mme. Edouard Herriot, Irish Fireflame, and those glorious creations of Mr. Samuel McGredy of Portadown in Ireland, viz., Colleen, Edgar M. Burnett (described as 'the sweetest-scented Rose in existence' and a distinct advance on *La France*), Florence Forrester, Iona Herdman (a grandly decorative Rose), and the deep orange yellow Mrs. Ambrose Ricardo. There also I hope to cultivate some of the finest of the *wichuraiana* Roses, especially White Dorothy, Hiawatha and Christian Curle, of very charming salmon pink complexion, raised and introduced some years ago by Messrs. Cocker of Aberdeen. At the garden of Kirk House (which has a sunny aspect and fertile soil) I have borders already prepared for *Antirrhinums*, Sweet Peas, Oriental Lilies and other flowers, which are sure to luxuriate there."

Mildew-Proof Roses.—In your issue of October 31 last there appeared, by your courtesy, a note of mine on "Mildew-proof Roses," asking for a statement from Rose-growers as to their experience of the relative powers of resistance in the best Roses. Including my own note and your appended list, eleven growers have given their experience with one Rose or another, and I desire to thank you and your various correspondents for a series of notes from which I have derived much pleasure and an amount of valuable information which will very considerably modify the Rose orders which I am now making out. At some future time I may ask you to indulge me with a little space in which further to discuss this interesting question in the light of the remarks made by your correspondents, but in the meantime it may interest you and your readers to know the tabulated results of your little symposium on mildew in Roses. I do not guarantee its absolute accuracy, but it may be taken as at least roughly correct. From first to last 102 Roses have been mentioned as possessing greater or less resistant power. Of these, one has received five votes, viz., General Macarthur, and one, four, *La Tosca*. Eight have received three, viz., Lady A. Stanley, Ulrich Brunner, Château de Clos Vougeot, Mrs. D. McKee, Grüss an Teplitz, Mme. Ravary, A. R. Goodwin and Lieutenant Chauré. Thirteen have been twice mentioned, viz., *Félicité*

Perpétue, Jersey Beauty, Jessie, Dorothy Page-Roberts, Miss Cynthia Forde, M. Paul Ledé, *Beauté de Lyon*, Gustav Grünerwald, Duchess of Wellington, Mme. Melanie Soupert, J. F. Barry, *Boule de Neige* and Zephyrine Drouhin. This leaves about eighty Roses which were recommended by only one writer. You will notice that your own list is well sustained by the plebs. Those who desire a few Roses fairly immune against mildew cannot surely go far wrong in planting the first ten at least. As regards those Roses twice recommended, there are one or two which I do not grow, and about which, therefore, I cannot speak. I can well believe, however, that the resistant power of this batch is above the average. At the same time, one or two, for instance, Mme. Melanie Soupert and Jersey Beauty, are undoubtedly offenders with me. Let me further say that among the planting schemes



LILIUM COLCHICUM, A STately SPECIES WITH LEMON-COLOURED FRAGRANT FLOWERS.

I have in prospect is a Rose hedge 33 feet long, to grow to a medium height, say, 3 feet or 4 feet. Of course, I wish to plant varieties little susceptible to mildew; for what could look more forlorn than a mildewed hedge? I think of planting the Roses 18 inches apart, and the varieties I have in view are *Boule de Neige*, Grüss an Teplitz, General Macarthur, Florence H. Veitch, Homère, Old China, Lady Waterlow, Zephyrine Drouhin and Sarah Bernhardt. These would make a fragrant hedge I think, though I doubt whether General Macarthur would reach the height. A yellow Rose is wanted. Would Duchess of Wellington be sufficiently robust? I should like Harry Kirk, but mildew forbids. Mrs. David McKee is a prime favourite of mine. It is, however, not exactly a yellow, and, notwithstanding its three marks, it mildews with me. But what an exquisite Rose it is, and such a "laster"!—SOMERSET.

SOME HARDY LILIES.—V.

By SIR HERBERT MAXWELL, BART.

(Continued from page 40.)

SUB-GENUS MARTAGON.

Lilium canadense, a graceful thing bearing in July drooping flowers of warm yellow tinted with fawn, delicately spotted. The rhizomatous bulbs should be set 5 inches deep in free soil full of leaf-mould or peat, shaded from intense sunlight and kept moist. It is not a showy Lily, but a very charming one.

L. chalcedonicum, the Scarlet Turk's-cap.—If this Lily is lacking in some of the grace which is the peculiar attribute of the family, it atones for it by the dazzling scarlet of its crown of flowers, which is so well set off by the grey-green leaves that cluster closely along the sturdy stems. These stems rise to a height of no more than 2 feet to 3 feet;

the bulbs, therefore, should be planted where they will not be overshadowed or crowded by ranker growths. A native of Asia Minor and the Eastern Mediterranean region, the Scarlet Turk's-cap is a lover of sunshine, but the best plants I have are growing among low shrubs. It is not a stem-rooter, therefore the bulbs may be planted only 4 inches deep, its requirements in soil and position being similar to those of the Madonna Lily, with plenty of lime. It used to be as easy to manage as the Orange Lily, but for some years past it has suffered frightfully from attacks of Botrytis, and should be regularly sprayed from the beginning of May. It is a late flowerer; in the South the blossoms open in July, but in Scotland it is generally August before they appear.

L. colchicum (syn. *monadelphum*).—If I were limited to the cultivation of three species of Lily, the choice would cause me long and painful deliberation, so many cherished favourites would have to be shut out; but I cannot doubt that, in the end, this Caucasian beauty, for which no English name has yet been devised, would be one of the trio. Lily experts may smile superciliously, for it is a plant of easiest culture; but I am devoid of ambition; loveliness, not the bubble reputation, is what I covet, and this delightful Lily is lavish of her charms. Robust enough to rise to a height of 5 feet or 6 feet, and to stand erect without crutches or staking under the weight of its cluster of lemon-coloured bells with scarlet anthers, it scents the summer air with delicious fragrance and exacts homage to its chaste splendour from every visitor. For the very life of me I cannot understand why

it is to be seen in so few of the many richly furnished gardens which abound in the British Isles. Possibly it is more liable than other Lilies to get destroyed in spring-cleaning; for although it is almost, if not quite, the earliest Lily to flower, it is among the latest to show above ground. Equally perverse is the behaviour of *L. auratum* and *L. speciosum*, which outstrip all others in early growth, yet postpone flowering till the rest are done. Another reason for the infrequency of *L. colchicum* is that it requires two or three seasons to get established. Imported bulbs should always be potted, kept in a cool frame, and not planted out till they manifest strong growth. Then let them be set 5 inches deep in strong loam, with or without lime, and left alone for years. Hitherto, this species, with its varieties *monadelphum* and *szovitzianum*, have proved immune from disease; at all events, during thirty years

or so that I have grown it, I have not known it to suffer from the most malignant of all plagues, Botrytis, although many of its neighbours have endured that scourge. It may be that the Evil One is but biding his time; it will be a sorrowful hour when the blight first shows upon the shining foliage of this beauty. Imported bulbs of *L. colchicum* should on no account be suffered to flower in the first year after planting; indeed, the plant often refuses to make any appearance whatever above ground until the second year, when, if the bulb was clean and sound when planted, it will grow away and flower as if nothing had happened. An admixture of wood-ashes in the soil is a good antiseptic for bulbs in a dormant state. There are many varieties of this Lily, the finest being the golden-flowered kind named *szovitzianum*.

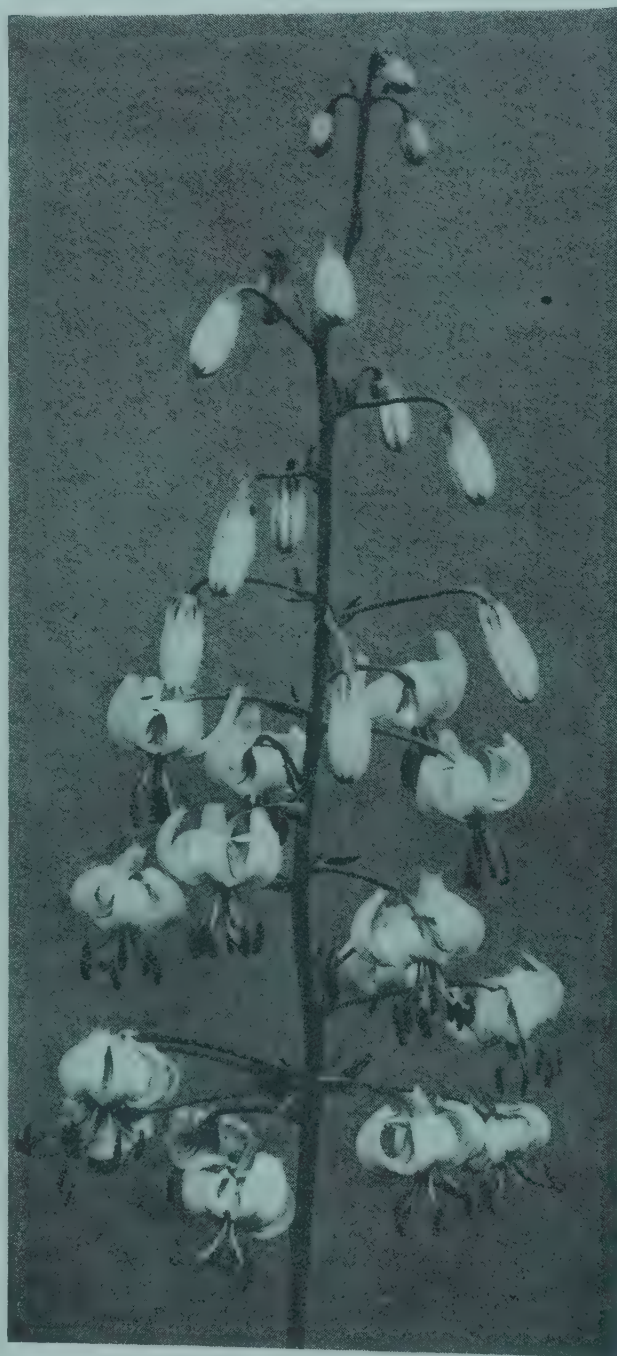
L. Humboldti.—There are two varieties of this fine Lily. One, the type, native of the northern part of the Sierra Nevada, has baffled all but the most skilful cultivators in attempting to establish it in European gardens; the other, entitled *L. Humboldti magnificum*, from the mountains of South California, is more accommodating, though not to be reckoned as everybody's plant. The treatment recommended is to set the bulbs nearly a foot deep in a sunny place in gritty loam, with or without lime. I have had it for some years and it produces its beautiful flowers twenty to thirty in a raceme, large turn-caps of ruddy gold, splashed and spotted with purple; but only once has it reached the height of five or six feet which it ought to attain, and, sad to say, it is more prone to dwindle than to increase, whether in numbers or in size. Wherefore it appears that I have not yet hit upon the right treatment. No pains are too sedulous to secure success, for this is a prince among the turn-cap tribe. It flowers in July.

L. Kelloggii was discovered not many years ago in California by Mr. Purdey. It is a very choice thing, and although I have not tried my hand with it yet, I have seen it blooming free and fair in Mr. Grove's garden, so there is no reason to despair of its future in this country. At present it is one of the rarest Lilies in cultivation. In form and manner of growth it is a refined model of the common Martagon. The Turk's-caps open white, then flush into rose and pass into purple. Deep planting, 9 inches or 10 inches, is recommended by those who have succeeded with this Lily, in a light, gritty soil with plenty of leaf-mould and faultless drainage. As it is easily raised from seed, it is likely soon to come within everybody's reach.

L. Marhan is one of the few hybrid Lilies whereof the parentage is known for certain. It is the offspring of *L. Martagon* and *L. Hansonii*, and it is a pity that the result is not more pleasing, for it is splendidly vigorous and healthy, putting forth flowers lavishly at a height of 6 feet. It is most refreshing to see the great blunt shoots pushing through the ground in early spring, as bold and massive as those of the Crown Imperial (*Fritillaria*); but the blooms, though finely shaped and gallantly borne, are of an unattractive brownish orange with dark spots. Stiff, sound loam, with peat or leaf-mould and with or without lime, satisfies its requirements.

L. Martagon is the only one of the genus which has become naturalised in Great Britain. It

occurs in some of the Southern Counties in situations such as have led some botanists to reckon it indigenous; but the freedom with which it scatters its seeds and the ease with which they germinate are enough to account for its dispersal. The typical plant, with flowers of a dull pinkish purple, is a graceful thing, but not worth a second thought compared with the white variety, which is one of the loveliest Lilies in existence and as free as it is fair. The robust variety, *L. Martagon dalmaticum*, is considered by Elwes to be a distinct



LILIUM MARTAGON ALBUM, A BEAUTIFUL HARDY VARIETY WITH WHITE FLOWERS.

species, and not without reason, for it grows 7 feet or 8 feet high, flowers a fortnight later than either the common or the white Martagon, and clothes its buds with a dense white down. Its perianth is of very dark but shining purple, nearly as dark, sometimes, as what is called the Black Tulip. The Martagon Lily, in all its forms, is as hardy a plant as the gardener has to deal with, and indifferent as to soil. Mr. Grove mentions a stiff loam as producing the best results, but I have seen *L. M. dalmaticum* 6 feet high flowering

with great luxuriance in peat and granite sand at an altitude of 1,200 feet in the west of Inverness-shire; although as it is a native of Dalmatia, where the prevailing rock is limestone and the sun very powerful, one would have expected a transition to the sloppy climate and acid soil of a Highland hillside would overtax its constitution. Notwithstanding its easy nature, many persons after paying a heavy price for the bulbs of *Martagon album* and *dalmaticum* (2s. 6d. and 3s. 6d. apiece) have been disappointed in the result. There is

but one reason for that, namely, that whereas the Martagon Lily rests for a very short time, it must be moved early in autumn. To delay planting till it suits the nurseryman's convenience to send the bulbs, probably in November, is to put a strain upon the constitution which it will not bear, and this applies to many choice bulbs besides the Martagon. The seed which these Lilies produce so freely is worth collecting and sowing in the open; for although the seedlings do not all come true to the parental variety, some of them will.

L. pardalinum, the Panther Lily, is a Californian species of the highest degree of merit, and almost, if not quite, as simple in its requirements as the common Martagon. It will thrive and make a brave display in conditions very different from those it seeks in a wild state; but to see it at its best, plant it in moist loam or peaty soil, give it space for the rhizomatous roots to spread, and in time it will reward you with a conflagration of red and yellow in July and August such as it is worth a long journey to see. I have in mind Lady Dartmouth's wild garden at Patshull, which contains a well-sheltered boggy hollow whereof the Panther Lily has taken complete possession, tossing masses of flaming blossom to a height of 6 feet or 7 feet. This Lily has wandered into an immense number of varieties in flower, foliage and stature, that everyone may indulge his taste for colour by choosing those in which crimson, orange or clear yellow predominates. In the variety *Johnsonii* the prevailing hue is cherry red. Mr. Grove has raised a beautiful hybrid between *L. pardalinum* and *L. Humboldti*, clear yellow sharply spotted with purple. I have seen this Lily in his garden bearing an immense mass of flowers on stems 8 feet high.

L. Parryi.—We have got among the difficult Lilies now, that is, those which exact thoughtful treatment and deft handling. That it responds generously to these, I have witnessed ample proof in Mr. Grove's border; but not having possessed the plant long enough to emulate his success, I can only advise the reader to consult pages 98 and 99 of his "Lilies," whence it may be learnt that means should be devised to mitigate the extreme of summer drought by subterranean irrigation, and of winter wet by a complete system of drainage. Deep and moist alluvium

without lime is the soil affected by this Lily in its native Southern California, and as no frost to speak of visits that region, the bulbs must be planted fully 8 inches deep to stand our winter cold. Above all, the drainage must be rapid. The reflexed petals of Parry's Lily are canary yellow, charmingly in contrast with the deep orange anthers. I have placed it among the Martagons, to which it bears a strong resemblance; but I am told it should be in the *Eulirion* group.

(To be continued.)

DAFFODIL NOTES.

"Somerset's" Perfect Catalogue.—If "Somerset" (December 16, 1914) is the "Somerset" who kindly made himself known to me at one of the Royal Horticultural Society's shows in the spring of 1913—I think it was at the Daffodil Show—he is an old hand at Daffodil-growing, and, as a perusal of his very interesting remarks seems to indicate, he at any rate has not been caught by the snare of the fowler. Still, he obviously has, if he is serious—which somehow I doubt—a grudge "of sorts" against the "much-respected" and "well-known" firm of "X. and Sons" of Pimlico (or somewhere) because they will pepper the names of the Daffodils in their list with small crosses, which, according to himself, have fallen, or have not fallen, where he would like to see them. What a dreadful thing for him to stand before his Glory of Leidens or his Minnie Humes next spring with the thought rankling in his mind that "X. and Sons" had only given each of them but two crosses! I am really sorry for his having such a thin skin, and I assure him that, judging catalogue compilers by myself, we who have *volens volens*, as it were, to appraise the relative values of the different varieties have no wish whatever to appear to be "gratuitous and a trifle officious."

The explanation is simple. All depends upon the point of view from which the variety is judged. It is open to "Somerset" or anyone else to say that a catalogue drawn up almost wholly from a show standpoint is all wrong; but I think he will see that he is going a little too far when he seems to suggest that the one or two crossed ones are only "poor trash after all." I am sometimes told that a variety I am very fond of is "rotten" and "no good." I have got, thank God, a duck's back, so I listen, civilly I hope, and then go on my way rejoicing. Let "Somerset" or anyone else have the courage of their opinions and let the catalogue compilers have theirs; this is the only way to solve the personal difficulty. If I like a variety and grow it in my garden, I would not mind in the very least how many crosses it had—no,

not even if it appeared among the discarded kinds of the Royal Horticultural Society's Classified List.

John Bull has not been in a trade catalogue for twenty years or more, but no Daffodil yet born is more satisfactory in grass and open woodland. It is different altogether when "Somerset" suggests that the apportionment of crosses and the basting of the different varieties with alluring words and phrases may be misleading. It probably is so sometimes. A purchaser who wants a few "rather better" varieties for his garden may not realise that all the marks and adjectival phrases in the list refer to the judgment of a show judge, and only in a very minor degree to a plant's garden value. The only suggestion I can make is that traders should state this fact very prominently, or, if it is not so, that they should make a point of letting all would-be purchasers know what standard their marks or remarks refer to. I hope in time that the Royal Horticultural Society's "Daffodil Year Book," coupled with the introduc-

tion of the new awards, may do much for those whose only object in buying Daffodils is to decorate their gardens. We must take a leaf out of the National Rose Society in the way it issues lists of the best sorts for various purposes. Our attempt in 1914 I look upon as a start.

If this can be sufficiently developed, I do not see why it should not be copied *en bloc* into every trade list. Perchance, however, "Somerset" would resent even this as an interference with the liberty of the Daffodiler to think what he likes because something else besides that *long bald* inventory of points (THE GARDEN, page 612, Vol. LXXVIII. column 3) has been included in it. It seems obvious that "Somerset" would like to see the elimination of all personal likes or dislikes as far as possible removed from any description. I see what he means, I think. He would like a sort of *Botanical Magazine*, one in contradistinction to that of an enthusiastic gardener. "Is it possible?"



SOLANUM CRISPUM, A BEAUTIFUL CLIMBER WITH PALE BLUE FLOWERS. (See page 54).

I ask. Not yet, for neither classification nor the names of shapes are finally settled—even colour designations are very vague, while, as for texture, nomenclature is still more at sea. When we settle these (and other points) once and for all, and when all of us agree to stand by the result, then, if *nothing else* but this bare list of facts be put after a flower, we will have "Somerset's" "perfect catalogue." Oh, but how cold it will be! and will everyone think it perfect even then? I fear not. What a Herculean task the would-be purchaser will have if he has to select "all on his very own" with no hand to help or star to guide! Imagine him constructing each one with compass and pencil and paint-box, or even forming mental images of their looks. I fancy very soon the "perfect catalogue" will be on the road to Jericho and the would-be selector will find himself disconsolately humming

"It's a long, long way to Tipperary,
It's a long way to go."

What, too, of poor "J. R.," who pleaded in THE GARDEN of January 2 for light on what varieties are calculated to withstand best the rigours of the cold North! He would not get much help. In fact, it occurs to me that if all catalogues were on the lines of "Somerset's" "perfect" one, it would really be grand for writers for the Press. There would be such a lot of things everyone would want to know, and "J. R.'s" would spring up on all sides. But I must cease my funning, or else I shall get rapped over the knuckles. What can I recommend in the way of

Daffodils Suitable for the North? To begin with, I will *not* include any one of the three that "J. R." mentions—King Alfred, Ariadne or Homespun. Not one of these is a good garden plant in the way that Emperor and Barrii conspicuous are. It may be that it is not the cold above ground that they so much resent. Probably it is the dry air or the cold, damp soil. I know, for example,

when Mr. E. M. Crosfield utterly failed to grow King Alfred at Wrexham, he sent his stock to the West Coast of Scotland, and there it soon put on a regular Cornish look. Hence, in making up this little selection, I am guided by the knowledge of what I think will "do" anywhere and that can look after themselves, like Emperor. Here it is, for what it is worth. I do not expect everyone to agree with it altogether, for Daffodils are such surprising creatures that one never can be quite sure what they will do next.

The List.—Bernardino, The Fawn, Great Warley, Lady Margaret Boscawen, H. C. Bowles, Red Chief, Occident, Solfatare, Noble, Steadfast, Pedestal, Blackwell, Countess of Southesk, Fairy Queen, The President (Wheadon), Evangeline, Argent, Duke of Bedford, Virgil, Whitewell (it lifted every year), Lord Muncester, Kingsley, Acme, Golden King, Orient, Empire, Hon. Mrs. Francklin and Cygnet. These might be added to, but the above are a fairly representative lot

of varieties, likely to do well anywhere. Is this what "J. R." wants?

Showing Leedsii.—I have had a long and very interesting letter from Mr. Morton, who wants to know how judges judge Leedsii classes now there are so many types, *e.g.*, the Eoster, the White Queen, the Duchess of Westminster, the St. Olaf, &c. He seems to think that the smaller kinds are often valued too highly when "ordinary" and "giant" are in competition, and suggests that an official division should be made by the Narcissus committee. I am very

told him he must keep it on the wall, that the growth on the top of the pergola would help to shelter it, and that this prudent placing would ensure its precious survival. When I visited him two years later, at the end of May, I found it had scorned the wall, had set itself on the top of the pergola, and there rose as a great dome of lilac-coloured blooms, braving the east winds that threw themselves down upon it from the chalk downs. I have now set it in quantity in the coldest shrubbery I possess. The example illustrated on page 53 is one I originally planted against

spikes of blossom more or less freely from June until late September. The Red Valerian is perfectly naturalised in the South of England, and imperfectly so in the Northern Counties and a few places in Scotland. It is usually associated with the sunny side of chalk pits, limestone banks and railway cuttings. It is an admirable subject for a wall garden, and never looks happier than when growing on rocky banks or ruined walls. This plant, botanically known as *Centranthus ruber*, is an old inhabitant of our gardens, and, apart from its value as a wall plant, looks very



THE RED VALERIAN, *CENTRANTHUS RUBER*, VEILING AN OLD WALL.

much disposed to agree, but it would be well to hear other opinions. Readers interested, please write.

JOSEPH JACOB.

SOLANUM CRISPUM.

SOLANUM CRISPUM is a plant which loves to peer over the wall top. I remember some years ago, when I still thought it of a half-hardy nature, planting it on the south wall of a pergola on high ground in Wiltshire. I recommended it to the owner of the garden with some misgiving. I

a wall, but, like the Wiltshire plant alluded to, it rises many feet above the wall and shoots out its great boughs as freely on the north as on the south side. It is, indeed, the north side that is here depicted. H. AVRAY TIPPING in *Country Life*.

THE RED VALERIAN.

EVERY wild flower has its season, and the Red Valerian is at its height of perfection about midsummer. Not that it is a flower of fleeting beauty, for it continues to send up its

handsome when grown in a flower border. The flowers show considerable variation even in the wild state—white, purple, red and crimson all being represented. The crimson form is the most attractive, but it cannot be relied upon to come true from seed, owing to the ease with which the flowers cross with one another. In the case of rocky banks and o'd walls the seed should be sown in spring in the places where the plants are to flower. When once established, self-sown seedlings are quite certain to appear in each succeeding year.

C. Q.

A GARDEN OF EVER-BLOOMING ROSES.

OUR American friends are very fond of the term "ever-blooming Roses," and if it is not quite correct, it serves its purpose to indicate to the reader what are really perpetual-flowering varieties. Naturally, if one possesses but a tiny garden, one desires to obtain as much enjoyment as possible from it; and I would ask, From what plant can we obtain so much delight or such a constant supply of bloom as from the Rose? If we plant Violas, it is true we obtain their sweet flowers over a very long period; but one cannot gather Violas, and one does Roses. Again, if we plant Zonal Pelargoniums, they not only look very wretched after a few showers, but they must of necessity be renewed every summer. So that one must come to the Rose if they would desire the greatest charm for at least seven months—from May to November—and I might even say to Christmas, for it was my pleasure last Christmas to gather quite a nice bouquet of Roses to adorn our table.

Supposing, then, one is able to lay one's garden out to contain a dozen beds for Roses, what kinds shall we plant? I would suggest they should be filled as follows; if possible, allot the largest bed to Hybrid Teas. The varieties named are all so good that it is difficult to say which are the best. Supposing all those named cannot be planted, I would suggest taking them in the order as given. I have called them Groups 1, 2 and 3. Group 1 would be planted in the centre of the bed or at the back of the border, as they are the strongest growers; Group 2 next, and Group 3 on the outer edge. This applies to all the lists given.

Bed No. 1.—Group 1—Mme. A. Chatenay, Lady Pirrie, Pharisæer, La Tosca, Dorothy Page-Roberts and Mrs. A. E. Coxhead. Group 2—Caroline Testout, General Macarthur, Gustav Grünerwald, Prince de Bulgarie, Mme. Ravary, Laurent Carle, Betty, Lady Ashtown, Mme. Leon Pain, Ecarlate, Ophelia, Theresa, Augustine Guinoisseau and Countess of Derby. Group 3—Mme. Jules Grolez, Richmond, Mrs. A. Tate, Mevrow Dora von Sets, Mrs. E. Powell, Countess of Shaftesbury and Old Gold.

Bed No. 2.—Tea Roses: Group 1—Corallina, G. Nabonnand, Peace, Marie van Houtte, Lady Hillingdon, Betty Berkeley, Rosomane N. Thomas, General Schablikine and Comtesse F. Hamilton. Group 2—Sulphurea, Molly Sharman Crawford and Mrs. H. Stevens. Group 3—Mme. Antoine Mari, General Gallieni,

Papa Gontier, Mrs. Sophia Neate or Little Dorrit.

Bed No. 3.—Monthly or China Roses: Group 1—Common Pink. Group 2—Armosa, Irene Watts or Laure de Broglie.

Bed No. 4.—Monthly or China Roses: Group 1—Laurette Messimy. Group 2—Comtesse du Cayla, Mme. E. Resal, Arethusa or Queen Mab. Group 3—Little Pet or White Pet.

Bed No. 5.—Monthly or China Roses: Group 1—Fabvier and Rödhätte. Group 2—Crimson China, Cramoisie Supérieure and

d'Or and Frau C. Walter. Group 3—Eugénie Lamesch.

Bed No. 9.—Group 1—Grüss an Teplitz, a strong grower that requires tying over, or to be transplanted every autumn and pruned to about 18 inches the following spring. Group 2—Merveille des Rouges. This is a grand bit of colour and deserves a bed all to itself.

Bed No. 10.—Single or semi-double Roses: Group 1—Danæ, Adrian Reverchon and Moonlight. Group 2—Queen of Musks.

Bed No. 11.—Single Roses: Group 1—Irish Glory. Group 2—Irish Elegance, Irish Simplicity, Irish Beauty, Irish Fireflame and Alexandra Zarifi. Group 3—Muriel Jamieson and Mrs. W. T. Masses.

Bed No. 12.—Pernetiana Roses, a glorious group with beautiful leathery foliage: Group 1—Cissie Easlea. Group 2—Mme. Edouard Herriot and Willowmere. Group 3—Arthur R. Goodwin, J. F. Barry and Louise Catherine Breslau.

If space permits, I would suggest isolated specimens of the following, either as moderate pillars, as a hedge mingled together, or individually as big bushes: Sylvia, Alister Stella Gray, Bardou Job, Climbing Mrs. Grant, Climbing Lady Ash town, Climbing Richmond, Florence H. Veitch, Gloire de Dijon, Gustave Regis, Papillon, Fellenberg, Longworth Rambler (a bad name, for it does not ramble, but for our purpose is just the sort), Aimée Vibert à fleurs jaune, Lady Waterlow, Birdie Blye and Trier. There are plenty of other sorts, but if all the foregoing can be planted, or only part, I can promise my readers a glorious display, commencing with the Old Pink China on May Day in some parts and closing the year with the same Rose and even some of the others. To encourage a continuous blooming, the beds should be dug deeply and the plants obtained on seedling Briar or on their own roots, as Roses on the cutting Briar are not nearly so perpetual as those on the seedling Briar. Then, again, summer pruning should be resorted to; that is to say, if the blooms are not culled much for the house, the growths that

bear them should be cut to good sound eyes, not too far back. Old blooms when faded should be removed, also any seed-pods that do form ought to be gathered when quite small, as their development naturally puts a considerable tax on the vitality of the bushes. The beds should be mulched in June with very rotten manure or a little peat moss, and occasionally forked up prior to this. If the season is dry, good liberal waterings will be advisable, especially on a gravelly subsoil. I also advocate a replanting of all the beds every third or fourth year.

DANECROFT.



A PHOTOGRAPHIC STUDY OF ROSE MME. RAVARY, A VARIETY THAT FLOWERS OVER A LONG PERIOD.

Charlotte Klemm. Group 3—Leuchtfeuer and Feuerzauber.

Bed No. 6.—Polyantha or Pet Roses: Group 1—Katherine Zeimet. Group 2—Jessie. Group 3—Jeanne d'Or. The first and last are white, the middle one red. If preferred all of one colour, of course either can be planted alone.

Bed No. 7.—Polyantha or Pet Roses: Group 1—Orleans Rose. Group 2—Annie Müller, Mrs. Cutbush and Ellen Poulsen. Group 3—Maman Turbat.

Bed No. 8.—Polyantha or Pet Roses: Group 1—Canarienvogel. Group 2—George Elger, Perle

ST. DABEOC'S HEATH.

STRICTLY speaking, this charming little low-growing evergreen shrub is not a Heath, but very closely allied to the family, thriving under similar conditions to the hardy Heaths. It is wild in Ireland, and is often known as the Irish Heath, its botanical name being *Daboecia polifolia*. It is strange that such a charming little flowering shrub as this is so seldom met with in gardens, as it is not difficult to grow, providing the soil is well drained and a good proportion of coarse peat is added before planting is done. For the front part of the shrub border, or even for filling a lawn bed where a low-growing, permanent plant is required, the Irish Heath, or one of its varieties, is excellent. In the case of the shrub border a good-sized colony should be planted, as this will prove far more effective than a solitary specimen. It forms a tuft-like shrub about a foot high, and its rather small, droop-

there appear to have been few attempts to secure distinct and new varieties of it. It is possible that most of those who grow this sweet-scented evergreen shrub prefer it in its original and simple form, yet there are several deviations from the normal that have their own peculiar charm and usefulness. One of these is the so-called golden-leaved Rosemary (*Rosmarinus officinalis aurea*), a counterpart of the type, except that the leaves have a golden tint. The most useful variety of all is *prostrata*, a half-creeping plant, which has rather smaller leaves than the type and is excellent for the rock garden. Planted above a large mass of stone, the growths will soon overhang it and form a fragrant bank of green. A very erect variety which makes fine specimen bushes for isolated positions is that known as Miss Jessop's Upright Rosemary. It makes a much better shaped plant than the original shrub, and yet has the fragrance and vigour of its parent.

and foliage some 9 inches to 12 inches high, and during the dull days of November produces its curious Pea-shaped flowers in abundance. The wings of these are light purple and the keel greenish yellow, a combination that is much more effective than one would imagine. The leaves are about two inches long, lance-shaped, and of a rather leathery texture. There is a variety known as *grandiflora*, which has rather larger flowers of creamy white colour. A well-drained position, with some protection from biting east and north winds in spring, are all that this dainty little shrub calls for in the way of special treatment. H.

NEW AND RARE PLANTS.

FIRST-CLASS CERTIFICATES.

Brasso-Cattleya Cliftonia albens (Cattleya *Trianae* alba × Brasso-Cattleya Queen Alexandra).

— The flower is of exceptional size and exquisite purity; an all-white flower, indeed, save for a suffusion of pale golden yellow in the back of the throat. Apart from purity, the exquisitely deeply crimped lip appeals, the side frilling being very beautiful and pronounced. Wedded to these is a flower of the largest size. A novelty of distinction and merit.

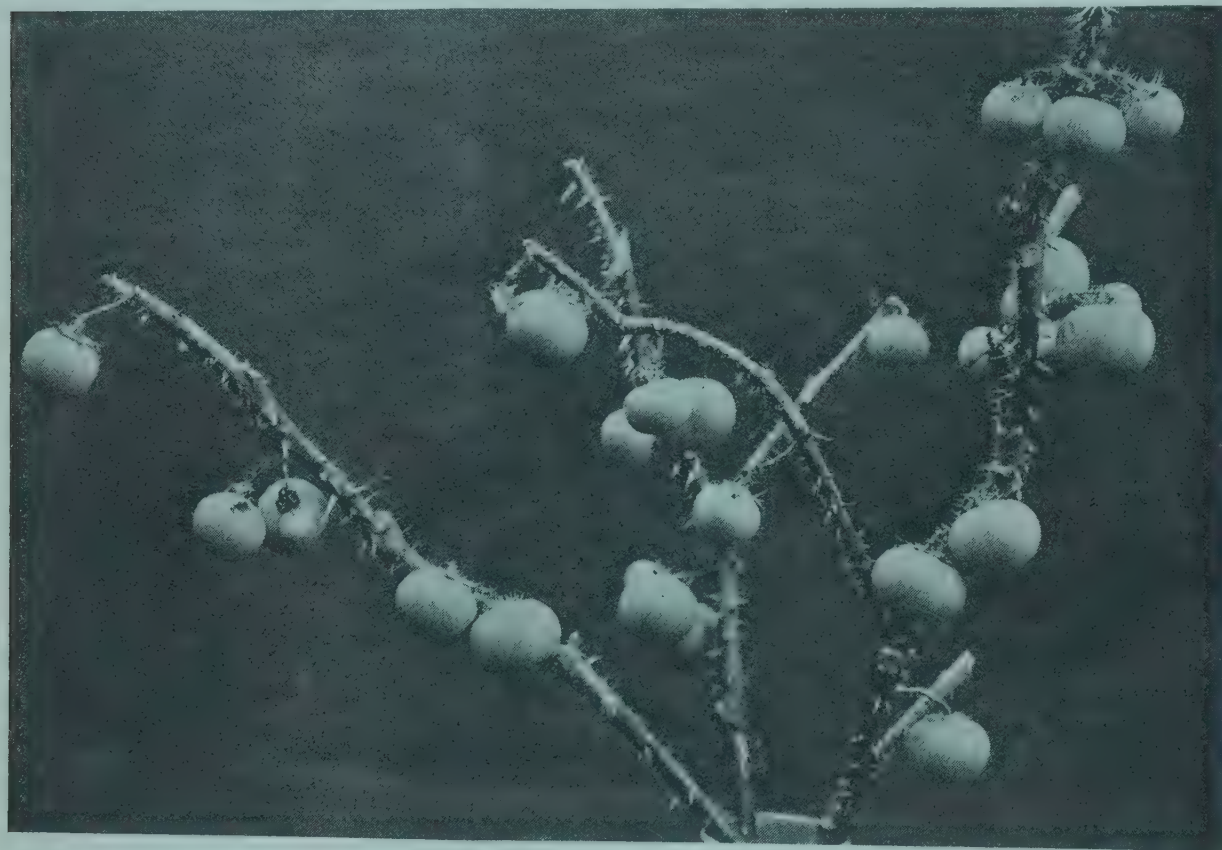
Dendrobium Triumph (*D. dalhousieanum* × *D. thyrsiflorum*).

— Without doubt the most remarkable Orchid novelty for many a day, and withal one of the most distinct, as might well be imagined from the intercrossing of two such dissimilar species. The greater leaning, both as regards the length and form of the pseudo-bulbs and the manner of flower production, is towards the first-named parent. The exhibited plant bore five pseudo-bulbs, and was probably six years or so old. The smallest bulb was of the length of a Cedar-wood pencil, the flowering one approximating to 4 feet. The widely spreading flowers are of purest white, and characterised by a huge maroon crimson blotch on either side of the lip, as in the

first-named parent. These remarkable novelties were exhibited by J. Gurney Fowler, Esq. Brackenhurst, Pembury, Kent (gardener, Mr. J. Davis).

Solanum ciliatum.—Although the fruiting shoots of this plant did not receive an award from the floral committee, they are sufficiently rare in this country to call for special notice. The accompanying illustration gives a good idea of the spiny stems and shape of the fruits. The latter in size and appearance closely resemble those of small scarlet Tomatoes. The plant is a native of Porto Rico, and Miss Willmott informs us that it makes a glorious bush in her Italian garden. Grown outdoors in her garden at Warley, however, the fruits have failed to colour. The fruiting sprays, which created considerable interest, were imported from Italy and shown by Messrs. R. Felton and Sons, Hanover Square.

The above were shown on the 19th inst., when the awards were made to the Orchids.



FRUITING SHOOTS OF *SOLANUM CILIATUM*, A LITTLE KNOWN PLANT FROM PORTO RICO.

ing, globular flowers are usually present for several months during summer. The colour of these is dull rose or red. Some nurserymen, however, offer a pure, glistening white-flowered variety known as *D. polifolia alba*, and this is a delightful little shrub. *D. p. bicolor* produces both red and white flowers, but the effect of these is not pleasing. March is a good time for planting the Irish Heath, and all who appreciate unusual shrubs should find room for a plant or two in their gardens.

LITTLE-KNOWN FORMS OF THE ROSEMARY.

ROSEMARY is one of those plants which were cultivated in the earliest English gardens, and when we consider this fact it is surprising that more varieties of it have not been brought into existence. It has always been a favourite, yet

The end of February is a good time to plant these old-fashioned shrubs, but to ensure success a well-drained site should be chosen, and the soil, if not already so, must be made of a sandy character. Given these and a sunny spot, the Rosemary will thrive for many years without attention.

A USEFUL ROCK GARDEN SHRUB.

DURING the late autumn months, when most of the plants in the rock garden are looking their worst, much interest may be derived from a few low-growing shrubs, providing these are selected with proper care and planted judiciously. One of the best that I know of for the purpose, and one that is not difficult to grow, is *Polygala Chamæbuxus*. This is by no means a common shrub, but were it more widely known I am sure that it would find a home in every well-appointed rock garden. It quickly makes a neat tuft of shoots

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Late Peaches.—The pruning of these must not be longer delayed, or there will be danger of the buds being damaged. To keep old trees well furnished with fruiting wood, it is sometimes necessary to remove some of the old branches. Guard against overcrowding, as there is nothing gained by leaving too much wood in the trees. When pruned carefully, wash the whole of the wood with a mixture of soft soap and sulphur before tying the trees to the trellis. If scale is present, a quantity of lime should be added to the mixture.

Fruit Trees in Pots.—Where a house can be devoted to the growing of pot fruit trees, it is doubtful if any other method of growing fruits under glass gives greater satisfaction. For the purpose of supplying fruit for table, the greatest consideration should be given to Peaches, Nectarines and Plums. These may all be grown successfully in the same house, and if the right varieties are chosen, a supply of high-class fruits may be had from the same house for at least two months. The trees which were repotted last autumn should now be ready to start, but before bringing them indoors do what little pruning is necessary and clean them with an insecticide. For the first week or two, fire-heat must not be used.

Plants Under Glass.

Euphorbia pulcherrima.—As the plants pass out of flower gradually withhold water, eventually placing them under a stage in a house having a temperature of about 50° to rest till they are required again to make cuttings for another season.

Calanthe Veitchii.—When the flower-spikes have been cut, the bulbs must be placed closely together on a shelf near to the glass in a temperature of 55° or 60°. If space is limited, shake out the soil from the bulbs and pack them closely together in boxes, covering the roots with sifted leaf-soil or fibre.

Hydrangea hortensis.—A batch of plants may now be introduced into heat. First overhaul them, cutting away weak, useless wood; and if they do not need repotting, give them a surface-dressing of some rich material. Cuttings rooted last autumn may be potted into 5-inch pots.

Richardia africana.—Plants must be given more liberal treatment in regard to watering and feeding. If necessary, some of the strongest plants may be hastened into flower by placing them in a warmer house.

Sweet Peas in Pots.—The plants which were raised last autumn should now be ready for potting into their flowering pots. Give them a rich compost and pot firmly. Keep them growing quite close to the glass and give fire-heat sparingly.

The Flower Garden.

Lawns.—The appearance of lawns will be greatly improved by rolling them, but this must only be done when they are in a suitable condition. Where moss is troublesome, an effort should be made to destroy it. A great deal may be got rid of by carefully raking the lawn with a small, sharp-toothed rake, afterwards applying a dressing of lawn sand. Where the grass is in poor condition, a dressing of some suitable manure should be applied as soon as it can be seen that growth is on the move. If new lawns are contemplated, the ground should be prepared at once, so that it may thoroughly settle down before sowing the seed or laying the new turf. Any alterations, levelling or draining of lawns must also be finished as soon as the weather will allow.

The Rock Garden.—Some of the larger-growing plants need carefully cutting back at intervals, or they will overgrow smaller subjects. In some cases it may be better to remove them altogether and replace them with young plants. Numerous bulbs may be planted in the rock garden for a spring display. Anemones, Snowdrops, Narcissi, Muscari, Chionodoxa, Scillas and some of the dwarf-growing Irises may all be effectively employed on the rockery.

The Hardy Fruit Garden.

Peaches and Nectarines.—The pruning and training of these must be done before there is danger of damaging the buds. First go over the trees and cut out any old branches which can be spared. An old, unsightly tree may often be much improved both in appearance and productiveness by a careful thinning of the old branches. Young trees which have made over-strong growth should be lifted and root-pruned, and when replanting see that the roots are not buried too deeply. It is a good plan to have the rooting medium a little above the natural level.

The Kitchen Garden.

Peas in Pots.—If a cool house, such as a Peach-case, is available, the first supplies may be obtained from plants grown in pots. The seeds may be sown in 6-inch pots and the seedlings potted on into 10-inch, or they may be sown in the larger size now. Give them a good rich compost and pot firmly. A dwarf variety, such as Little Marvel, must be used for this purpose.

Potatoes.—If the soil is in suitable condition, the tubers which have been prepared for growing in pots may be planted now. Plant them in drills about two feet apart and 9 inches between the tubers. No water will be required until the plants have made 2 inches or 3 inches of growth. Encourage them to grow sturdily by carefully admitting air whenever the weather will allow.

Forcing Vegetables.—Place quantities of Asparagus, Seakale and Rhubarb into the forcing quarters at regular intervals. Seakale and Rhubarb may be covered with boxes and litter outdoors to follow the indoor supplies. A supply of Mustard and Cress can easily be kept up by sowing in cutting-boxes every few days.

Horseradish.—An out-of-the-way corner in the garden is suitable to grow this useful vegetable, but the ground must be deeply dug for its reception. The roots may be lifted now and replanted in rows a foot apart.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

Fruit Under Glass.

Vines.—When young Vines are required, either for planting or growing in pots, this is a good date to start propagating by inserting eyes. Each eye should be inserted in a separate piece of turf and plunged in a close propagating-case. Well-ripened wood of medium size is the best from which to select the eyes.

Planting Young Vines.—The formation of the borders in which these are to be planted should be completed. The young Vines, which have been already cut back to two eyes, will be found to start much more readily and strongly if the roots are spread out in shallow boxes of soil and placed on the hot-water pipes. See that the Vines do not want for water until they are finally planted out in April in their permanent quarters.

Peaches and Nectarines.—Examine the borders occasionally in houses where trees are resting. Excessively dry borders are very often the cause of much bud-dropping and uneven setting.

Pot Figs.—The strongest growths must be pinched when they have made six or seven leaves. This operation should be extended over several days, so that the entire plant is not checked at once. Although Figs succeed best with a restricted root-run, they must have constant applications of liquid manure, also occasional top-dressings.

The Kitchen Garden.

Parsley.—If, owing to severe weather, the supply has become exhausted, some plants had better be lifted and planted indoors. Very little heat will be required to make them produce some fresh young leaves. Make a sowing in boxes to have plants ready for planting out early in May.

Manuring.—Take advantage of all opportunities, such as frosty mornings, to get manure carted or wheeled on to all vacant plots which are to be dug.

Pea Stakes.—Attention to these can be given while the ground is unfit for working on. The

life of Pea stakes is generally short, so that they need to be replaced, if not annually, every alternate year. When suitable Pea stakes cannot be obtained, large-meshed wire-netting, such as is used for sheep, will be found a good substitute if used double and supported by stout stakes.

Plants Under Glass.

Amaryllis.—To keep up a succession of flowers, small batches of plants must be brought into heat. For the earliest lot, select plants that will not require repotting this season. These plants are very subject to attacks of mealy bug, and must be looked over carefully before starting. The scales of the bulbs offer an excellent hiding-place while the plants are dormant.

Ferns.—It is not a good practice to repot all Ferns each year, as most of them produce their best fronds after they become pot-bound. Still, some will need renewal, and should be attended to before the young fronds commence to unfold.

Clerodendron fallax.—Although this brilliant stove-flowering plant may be propagated from cuttings, it is more simple and better to raise it from seed. A batch of it sown now will flower during July and onwards. Being very subject to attacks from red spider, the plants throughout their growth must be constantly syringed as a prevention. Besides, this plant revels in a humid atmosphere with plenty of heat.

Streptocarpus.—Cuttings which were inserted five to seven weeks ago are ready to pot. Three and a-half inch pots will be large enough, and for this potting use a fairly light compost. Keep the cuttings close for a few days, and spray lightly when the weather is bright. If green fly is troublesome, a fumigation should be given when the plants have recovered from the check of potting.

Cordylines are easily raised from seed, and it is a good plan to raise a number annually, so as to have them all sizes for decorative work. Being less tender than Palms, they are very useful during the winter season.

Crotons.—Cuttings should now be taken and plunged in a close propagating-case in the stove. Well-furnished tops can be "rung" and moss tied around, into which they quickly root and are then ready for potting.

The Hardy Fruit Garden.

Winter Spraying.—The use of alkali must soon cease for this season, as it is dangerous to swelling buds. Unless fruit trees are very bad with lichen and insect pests, it will be found frequent enough if applied every alternate year. Too free a use of this wash is apt to injure the bark and buds even while dormant.

Grafting Preparations.—Scions of Apples intended to be used for grafting later on should be carefully labelled and heeled in the soil behind a north wall.

The Flower Garden.

Cosmos.—Unless sown early, this annual does not flower freely until far into the autumn; often it is cut down by frost when at its best. It should not be planted in too rich a soil, or an abundance of gross growth will result, with very few flowers. The seed germinates rapidly in a warm greenhouse, and the young plants should be potted singly as soon as ready to handle.

Begonias.—Both fibrous and tuberous rooted Begonias should be sown now in seed-pans. The seed, being very small, must be carefully sown on the surface of very fine soil, and ought not to be covered. Place sheets of glass over the seed-pans, and put them in a temperature of 60°.

Montbretias.—Frames containing Montbretias should be ventilated freely to try to retard the young growths. Protect them only during severe frost. These plants respond to very liberal treatment, and are well worth any extra time and trouble bestowed upon them. The beds or borders they are to occupy should now be prepared by digging in a good quantity of farmyard manure, adding a dusting of bone-meal at the same time. The following varieties are all free flowering and handsome: George Davison, Star of the East, Prometheus, Westwick, Messidor, Hereward, Germania, aurantiaca, carmineus, Ernest Davison, Oriflamme and Gold Mine.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

DAFFODILS FOR THE GARDEN.

I FEEL that I must give expression to my sympathy with "J. R.," who tells us in the issue of January 9, page 22, how he opens his GARDEN every week in the hope of finding an article on his favourite the Daffodil, and how often he is disappointed; for I scan its pages eagerly each week for some "Daffodil Notes" myself. I heartily endorse his appreciation of the Rev. J. Jacob's articles. They always contain useful information, and are so charmingly written that reading them is like enjoying a friendly and intensely interesting chat.

"J. R.'s" further remarks raise one or two points in my mind which I should like to mention. If there is a variety for which you have a particular liking which does not thrive with you for the first two, three or even four years you have it, do not give up hope or throw it away, unless it is known to be a bad doer everywhere. Keep it, and very likely you will find that it will presently acclimatise itself and "settle down" to grow quite well. Ariadne has been with me a striking example of "settling down." A few rather sickly bulbs of it were given me, I think, eight years ago. For three or four years it was a wretched thing, hardly knowing whether to live or die; then it began to improve, and the last two seasons it has been splendid, growing with much vigour and rapid increase. When lifted last summer, the bulbs were full-sized, plump, hard and clean. Its foliage, however, is naturally, even in perfect health, of a slightly yellower and washier green than most.

Homespun is a lovely show flower and a rapid increaser, but I should say it is not a first-rate garden plant anywhere. It has never been sickly with me, but it is not a vigorous grower. I saw it in a garden close to the sea with a grand climate, where King Alfred simply romps, no better than I have it myself. Coming to King Alfred, we have a peerless flower over which it is well worth taking a lot of trouble. In my opinion there is no golden self Ajax within reach of ordinary purses which can for a moment compare with it, and I scarcely think I have seen anything among the finest and newest seedlings which really excels it in actual beauty. It is a noble plant, while the bloom has exceptional substance, making it extraordinarily lasting as a cut flower. Its form is perfectly graceful, its texture velvety and refined, and its glorious colour of wonderful purity. If you hold a bloom up directly facing the sun, you will, if you look carefully, see a beautiful sort of luminous halo on the reflexed brim of the trumpet, while the superbly serrated crown, together with the colour, gives the flowers when seen in a bunch or growing in a mass a regal opulence of splendour that is unrivalled. I was going to add that its stem is the envy of all other Daffodils, but probably "J. R." will not agree with that! Doubtless its great height has disadvantages in wind, but the distinction it lends to the plant and the advantages of such a stem for cutting more than outweigh them, and make it well deserving of special consideration in the way of an extra well-sheltered position.

Now for my experience with His Majesty. My first bulb of it was a nice, clean, strong one from the Riviera-like climate of Cork, in comparison with which the "Black North" must have felt

very inhospitable. The first two years it did splendidly, then suddenly it went very sickly, though still increasing; but the bulbs were small and sickly looking. Some seemed stronger than others and soon recovered; but all, or practically all, became quite healthy again, and now increase rapidly with perfectly healthy foliage and abundance of blooms, seeding very freely. A few are just appearing above the ground as I write, and look stronger and bigger than ever. A few tiny and very sickly bulbs—almost dead, in fact—of King Alfred came to me some years ago. I planted them in a carefully chosen position. I fancy the worst did die, but a number came up, and their growth suggested the very last stages of sickness. As they looked no better at the end of three years, I made up my mind to throw them away. When I dug them up, I found that although they had gained scarcely anything in size, they were distinctly cleaner and more healthy looking. I then replanted them in a new position, and in two years several had attained flowering size and did flower last spring, while all looked strong and healthy, and will this season, I expect, be quite equal to the best of my stock.

I believe there are some places where King Alfred will not grow; still, I should recommend "J. R." to give it another trial in as sheltered and warm a spot as he can afford, planting pretty deeply in deeply trenched ground. If the soil is heavy and cold, no doubt it will help greatly if a generous quantity of leaf-mould, wood-ashes and sand be incorporated with it. Personally, I think King Alfred so beautiful that if I could not grow it in any other way I should prepare a bed very carefully and then build a cold frame over it!

If "J. R." wants a stiff-stemmed, small white Leedsii, and not extra tall, let him try Fairy Queen if he does not already know it. The growth is vigorous and rapid of increase; but Waterwitch would not be Waterwitch without that fishing-rod stem and lovely drooping grace. I know it looks untidy in the garden when it is stormy, but cut a bunch of flowers and arrange them lightly in a vase for a high shelf in your room, and you have nothing like it for graceful effect, which will be heightened if you put a jarful of Autocrat near by way of contrast.

County Antrim.

G. L. WILSON.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

IRIS FAILING (W. H. R.).—Though it is the worst season of the year for these plants, the portions submitted are not in a very flourishing condition. In large degree, if not absolutely, we should lay the blame on the heavy clay soil of your district, a condition magnesium limestone screenings would not remedy unless incorporated with the staple at something like fifty per cent. In this proportion it would ensure a much more rapid drainage, and by

precipitating the superfluous water to a lower level, aerate, warm and drain the soil, which is the chief thing needed. Freshly burnt lime, when slaked, at the rate of three bushels per rod of ground would do much the same thing, and would also neutralise any soil acidity, should such exist. The burnt clay (ballast), usually so plentiful in your district, would, if applied at the same rate, also assist in the same way, and leaf-mould, grit or sand would do the same. Should you have the opportunity, try a small experimental bed or patch on the above lines, raising it a foot or more above the ordinary level to facilitate drainage, &c. With increased soil warmth and porosity the plants will do much better. Mid-March is a good time for replanting, and in doing this you only need retain the sectional portion of the rhizome made last year with its complement of roots. The older rootless sections are valueless, and may be discarded. Keep the rhizomes level with the surface soil when planting; do not bury them.

TREES AND SHRUBS.

CAMELLIA OUTDOORS (A.).—You will find Camellia japonica Chandleri elegans a very good pink-flowered kind to use on your wall out of doors. Drain the border well if not naturally well drained, and mix a little peat and leaf-mould with ordinary light loam. Do not overdo the peat, but a little about the roots will be appreciated. A plant can be procured from Messrs. Wm. Paul and Sons, Nurserymen, Waltham Cross, and the best time to plant is late April. Protect the plant at night for a month or so, and for a short time against bright sun at midday. Also be careful to keep it well watered until the roots are working well into the new soil. The most important item is to prevent the old ball of soil from becoming dry.

STANDARD BROOM (A. B.).—It is usual to graft certain kinds of Broom upon stocks of common Laburnum, either quite low down or upon stocks 2 feet to 4 feet high. In some cases Laburnum roots are used for stocks. Such strong-growing Brooms as Cytisus praecox and C. scoparius andreanus are best grafted quite close to the ground or worked upon roots, and look out of place as standards. Such kinds as C. purpureus and C. leucanthus make fine heads when grafted on stocks 2 feet or 3 feet high. To work the stocks in this way, the Laburnums should be established in pots and the grafting be done in a warm greenhouse in late February or March. Use firm shoots for scions, and use either an ordinary side graft or a wedge graft. Lay the plants on their sides in a close propagating-case until the union of stock and scion is complete; then gradually inure to the open greenhouse, and eventually plant out of doors.

THE GREENHOUSE.

VARIOUS GREENHOUSE QUESTIONS (G. B. S.).—(1) In practice this has not been found satisfactory. (2) No. (3) Doubtful if it would. (4) Clematises may be readily flowered in pots of different sizes. For instance, at some of the meetings of the Royal Horticultural Society, well-flowered examples are often shown in 5-inch pots, while, for large specimens, pots 1 foot in diameter may be used. (5) For permanent decoration they would be better planted in a border than grown in pots. At the same time, as Clematises do so well out of doors, we fail to understand why you are building a house for their reception. (6) They would grow up a trellis on the roof very well. (7) They are pruned the same under glass as out of doors. Different sections, however, need different modes of pruning. (8) When Clematises are confined in pots they need good soil, such as three parts loam to one part leaf-mould, and well-decayed cow-manure free from insects. As the pots get full of roots, an occasional stimulant will be beneficial. The border should be effectually drained and contain a couple of feet of good soil. We do not know of any other book on the subject.

VARIOUS QUESTIONS (H. T.).—Pancratiums.—These are essentially stove plants, and many successful cultivators keep them in that temperature all the year round. On the other hand, they are by some given a slight rest after flowering. This has one drawback, inasmuch as if kept somewhat cooler and drier for about a month in order to rest them, the foliage is apt to acquire a yellowish tinge. The best temperature for Pancratiums is, during the winter, a minimum of 60°, rising during the day, with, of course, an increased temperature as the days lengthen and the weather gets warmer. They should flower twice in a year. Where it is intended to rest them, they should for a month be placed in a temperature from 5° to 10° cooler, and given rather less water. Begonia Gloire de Lorraine.—The plants that are going out of bloom should be partially shortened back and placed in a temperature of 50° to 60°. Just enough water should be given to keep the soil slightly moist. In this way the plants will undergo a period of partial rest. Then, early in March they may be put into a structure 10° warmer or therabouts and given more water, at the same time spraying them during bright days. This will lead to young shoots being pushed out, those nearest the base of the plant being the best for growing into large specimens. As soon as they are rooted and potted singly, the young plants should be placed near the glass in order to maintain a healthy, sturdy growth, and plenty of light, heat and moisture given, but they must be shaded from hot sun. Air must be given whenever it is safe to do so. The temperature may range from 60° at night to 20° or so higher in the day. A suitable compost may be made up of equal parts of loam and leaf-mould, with a little sand and dried cow-manure. Good plants may be grown in pots from 5 inches to 7 inches in diameter. During the growing season the plants may be subjected to a temperature of 65° to 80°, and as the pots get full of roots

an occasional stimulant will be beneficial. With the approach of autumn and the flowering season the temperature may be gradually reduced to 55° or 60°. *Dendrobium nobile*.—After the flowers are over, say, in the month of April or May, the plants will then produce new growths from the base of the pseudo-bulbs, and that is the time to repot them if they require it. Fibrous peat and sphagnum moss form a very suitable compost. After repotting, water should be sparingly given till the fresh roots have taken possession of the new material. Maintain a temperature of 65° to 70° by night and a reasonable rise by day. Keep the atmosphere moist, and occasionally spray the plants during bright weather. They must also be kept well watered. When the bulbs are fully developed, they must, in order to ripen them, be gradually exposed to more air and sunshine and a cooler and drier atmosphere. This must not be done all of a hurry, but first allow them to become moderately dry at the root, then remove them to a minimum temperature of 60°, with a little more air. This and gradual exposure to full sunlight will lead to well-ripened pseudo-bulbs. During the late autumn and winter a temperature of 55° to 60° by night, and a little warmer during the day, will suffice. At that time they must be given just enough water to keep the bulbs plump. Then, as soon as the flower-buds are visible, the plants must be removed into a warmer structure to expand their blossoms. *Poinsettia pulcherrima*.—As soon as these have done flowering, the old heads of bracts should be cut off and the plants placed in a structure of 50° to 60°. They should then be kept dry, in order to give them a period of absolute rest. If the plants appear to suffer, a little water may be given them. Then, in April the soft tops may be cut off and the plants taken into a warmer structure, given some water, and be occasionally syringed. This will lead to a great number of new shoots being pushed forth, and when these are about three inches long they make suitable cuttings. If put into small pots of sandy soil and placed in a propagating-case of about 75° they will soon root. As soon as this happens, they must be inured to the ordinary atmosphere of a structure kept at 65° to 70° and shifted into larger pots when necessary. During the summer they may be grown in a cold frame, giving them plenty of air in order to encourage a sturdy growth. With the return of autumn they must be placed in a warmer structure in order that the bracts may be developed without a check. When the plants are growing they should occasionally be given liquid manure *Euphorbia jacquiniæflora*.—As soon as they have done flowering, the long, arching shoots may be shortened back, and the plants given a good light position in the stove, taking care to guard against an excess of moisture. As soon as the shoots are about three inches long, they may be taken as cuttings and inserted into well-drained pots of sandy soil. In a propagating-case, in a temperature of 65° to 75°, they will soon root. Care, however, must be taken that they do not damp off, which, owing to their succulent nature, they are liable to do if kept too close. As this *Euphorbia* is of spare habit, in order to obtain bushy specimens three plants are often put into the flowering pots. They must, during the summer, have plenty of light and air and a temperature of 65° to 80°.

MISCELLANEOUS.

NAME OF PLANT.—*J. Ballantyne, Melrose*.—The specimen of Butcher's Broom (*Ruscus aculeatus*) sent for examination appears to have been taken from a female plant. It is necessary to have plants of both sexes in order to obtain fruit.

NAMES OF FRUIT.—*North*.—Apple, Bess Pool; Pear, Bergamotte Esperen.—*F. W. Ashdown*.—1, Waltham Abbey Seedling; 2, Lamb Abbey Pearmain; 3, Hawthornden; 4, New Bess Pool; 5, King of the Pippins; 6, Scarlet Pearmain; 7, Wyken Pippin.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

THE second fortnightly meeting of the year was held on January 19, and was the occasion for an exhibition which, if lacking great extent, certainly was not lacking variety or interest. Much of the latter was due to the hardy plant specialists bringing in their earliest productions; but, even so, there is room for a still greater number of these and other exhibitors to rally to the society's aid and make these gatherings more normal in these abnormal times. Apart from the alpine, which attracted large numbers, retarded Lilies and other plants, epiphytal and hardy Ferns, Carnations in plenty and of high quality, and a brilliant lot of winter-flowering Zonal Pelargoniums were among the features of the meeting. A few nice Orchid groups were staged, and two remarkable novelties—the only ones at the meeting—received first-class certificates. For a description of these see "New and Rare Plants," see page 56.

FRUIT AND VEGETABLE COMMITTEE.

Present: J. Cheal, Esq. (chairman), and Messrs. G. Woodward, J. Willard, E. Beckett, E. A. Bunyard, H. J. Wright, G. Reynolds, J. Jacques, G. Wythes, Owen Thomas, P. Veitch, W. Poupert, J. Davis, W. Bates and A. R. Allan.

There were no groups of fruit staged, and only one or two small collections of Apples, chiefly of dessert kinds, shown to test keeping and flavour qualities. For this purpose Mr. E. Beckett, gardener to the Hon. Vicar of Gibb, Elstree, staged about a score of sorts, chiefly of well-known and popular varieties.

Messrs. J. Cheal and Sons, Crawley, had a smaller lot of dessert Apples, among which we noted Allen's Everlasting, a rough-looking though fine-flavoured late sort. Brownlee's Russet was also noted. This firm also showed in excellent form their two new culinary Apples *Crawley Beauty* and *Encore*, both of which have gained high encomiums in their own particular sphere.

Mr. James, Manor House Gardens, Ditton Hill, showed fruits raised from a pip of Apple Cox's Orange Pippin, quite unlike that variety in general appearance.

None of the varieties gained an award, though, judged by the entire absence of fruits later, the "testing" plus appreciation would appear to have been universally severe and complete.

ORCHID COMMITTEE.

Present: J. Gurney Fowler, Esq. (chairman), Sir Jeremiah Colman, Sir Harry J. Veitch, and Messrs. J. O'Brien, Gurney Wilson, W. H. White, T. Armstrong, A. Dye, J. Charlesworth, S. T. Flory, F. Sander, R. Thwaites, J. E. Snill, C. H. Curtis, W. Cobb, F. M. Ogilvie, R. A. Rolfe, F. J. Hanbury, W. Bolton and C. J. Lucas.

Orchid groups were not numerous, though some choice specimens were shown. The most extensive group was that of *Cattleya Trianae* alba *Maggie Raphael*, from Messrs. Armstrong and Brown, Tunbridge Wells, and of this alone some three dozen well-flowered examples were staged. Others of merit in the group were *Miltonia bleuana*, *Lycaste Bella*, *Cypripedium lathamianum* Rex, *Brasso-Cattleya Veitchii* and *Masdevallia triangularis*. *Silver Flora* medal.

Messrs. Stuart Low and Co., Enfield, had a charmingly flowered example of *Miltonia Phalaenopsis*, which is rarely seen in such profusion or beauty; the lovely orange-blotched *Dendrobium wardianum*, *Laelia anceps roeblingiana*, in company with *Cypripedium* in variety and a batch of *Odontoglossums*, among which *O. Artemis* was very attractive. *Silver Banksian* medal.

Messrs. J. and A. McBean, Cooksbridge, had quite a series of *Cymbidiums*, whose tall, arching racemes of quaintly formed flowers are very striking at this time. *C. gottianum*, *C. Alexander* and *C. Schlegelii*, the latter of pinky hue, were the best of those staged. All are beautiful, ornamental, and of considerable utility in winter-time. *Cattleya alba Maggie Raphael*, the dark *Odontoglossum keighleyense*, *Laelia anceps alba*, *L. a. Schröleri*, and *Sophro-Cattleya November*, rich dark varieties, were, with *Cypripediums*, others in the same group. *Silver Banksian* medal.

Messrs. Sander and Sons, St. Albans, also received a *Silver Banksian* medal for a choice collection, including *Dendrobium aureum*, *Laelio-Cattleya Trimyra* (of yellowish orange tone), *Lycaste macropylla* (red sepals and petals), *Cymbidium Holfordi*, the white, yellow-crested *Ceologyne mooreana*, *Cypripedium nitens* Sander's variety, *C. callosum* Sander's, and *Odontodia devossiana* (whose abundantly flowered racemes were very telling). *Odontoglossum crispum harryanum* was also very fine.

FLORAL COMMITTEE.

Present: H. B. May, Esq. (chairman), and Messrs. C. T. Druery, E. A. Bowles, W. J. Bean, B. Crisp, G. Reuthe, C. E. Pearson, A. Turner, C. Dixon, J. Dickson, W. P. Thomson, Charles E. Snea, W. A. Bilney, J. W. Barr, F. W. Harvey, J. F. McLeod, J. Hudson, R. C. Reginald Neville, C. Bick, W. Howe, J. Jennings, T. Stevenson, H. J. Jones, E. H. Jenkins and G. Paul.

Messrs. Barr and Sons, Covent Garden, W.C., showed boxes of alpine and early bulbous flowering subjects, among which were noted a delightful lot of *Narcissus Bulbocodium monophyllum*, *Sternbergia fischeriana*, *Galanthus Elwesii* (more beautiful and robust than usual), *Anemone blanda taurica*, *Adonis amurensis*, early flowering *Cyclamens*, together with Christmas and Lenten Roses in plenty and rather nicely flowered.

Messrs. Stuart Low and Co., Enfield, had quite a sumptuous lot of Carnations of good quality, imposingly arranged. A central stand of Gorgeous, perhaps the finest cerise of to-day, contained some ten dozen well-developed flowers, quite a feature in itself. Others of note in the group were Mrs. Mackay Edgar (pink), *Satin Robe*, *Enchantress Supreme*, *Princess Dagmar* (crimson), Mrs. C. F. Raphael, *Snowstorm*, together with vases of seedling *Perpetual Malmaisons* and others in mixture. Ornamented by sprays of *Asparagus Sprengeri* and Ferns, the group was a highly attractive one. *Acacia platyptera*, together with a variety of *Cyclamen* in pots, were also on view. *Silver Banksian* medal.

The Misses Hopkins, Shepperton-on-Thames, showed alpine in boxes, with coloured *Primroses* and other plants. *Tussilago fragrans* was also on view.

Messrs. R. F. Felton and Son, Hanover Square, had a remarkable exhibit of fruiting branches of *Solanum ciliatum*, a shrubby species as shown, whose reddish scarlet fruits are highly ornamental, the largest after the form of a small Tangerine Orange. To the accompaniment of *Ruscus racemosus*, *Pittosporum Colensoi* and *P. undulatum* the group was a great attraction. *Solanum ciliatum* is a native of Porto Rico. It should be noted, however, that Nicholson describes it as a "greenhouse annual," which the above hardly appeared to be.

Mr. James Box, Hayward's Heath, showed boxes of alpine, containing such as the early *Cyclamen*, *Shortia galacifolia*, *Saxifraga burseriana*, a very charming lot in good flower and the first display of the year. *Marrubium sericeum*, *Erica mediterranea hybrida*, the new *Primula malacoides robusta*, *Erica codonodes*, *Primula Julise* and *Hamamelis arborea* were others of the earliest flowers of the year.

Messrs. H. B. May and Sons, Edmonton, displayed a table of epiphytal Ferns, a large number being of the highest interest. These included such as *Polypodium piloselloides*, *P. vacinifolium album*, of glaucous tone with brownish rhizomes; *P. lycopodioides*, *P. percussum*,

P. salicifolium, *P. repens*, *Davallia pycnocarpa*, *Drymoglossum piloselloides*, *Asplenium obtusolobum* and *Davallia rufo*, of which a 3-foot-high specimen was shown. These were interspersed by other Ferns in variety, *Nephrolepis* and *Gymnogrammas*, all being of equal interest. *Silver-gilt Banksian* medal.

Messrs. W. Wells, Limited, Merstham, showed a stand of *Carnation Pink Sensation* and the winter-flowering *Antirrhinum Nelrose*, which is very beautiful.

Messrs. T. S. Ware, Limited, Feltham, displayed a collection of alpine in pans, not a few already giving indications of flowering. Of these, *Saxifraga Frederica-Augusta*, *S. Grisebachii*, *S. burseriana Gloria*, *S. b. tridentata longifolia*, *S. Faldonside*, *S. apiculata alba*, together with *Lenten Roses*, *Iris alata*, *Lithospermum rosmarinifolium* and *Iris stylosa*, were very beautiful. *Bronze Flora* medal.

Mr. L. R. Russell, Richmond, exhibited a table of pot shrubs and decorative subjects generally, such things as *Pyraecantha* (*Cotoneaster*) *angustifolia*, *Garrya elliptica*; *Pernettyas*, *Prunus triloba*, *Skimmias*, *Hamamelis arborea*, *Rubus leucodermis* and *Eurya latifolia variegata* being noted. *Silver Banksian* medal.

Messrs. William Cutbush and Sons, Highgate, N., displayed many fine vases of Carnations, of which the new pink *Lady Inge* was in strong force. It is of a most beautiful shade. *Carola*, crimson; *White Swan*, Mrs. L. D. Fullerton, fancy; and *Marmion* were other good sorts. In a hardy plant exhibit adjoining, *Iris Histro*, *Hepaticas* in variety, *Saxifraga burseriana*, *Galax aphylla* and *Daphne Dauphinii* were noted. Sprays of *Zonal Pelargoniums* were also staged. *Silver Banksian* medal.

Mr. G. Reuthe, Keston, Kent, showed, as usual, an interesting lot of things, both alpine and shrubs. Of the former, the *Saxifragas* were the chief, and of these there were many choice kinds, of which *S. Grisebachii* and *S. burseriana* were already prominent in flower. *Hepaticas*, *Cyclamen Atkinsii purpureum* (a richly coloured sort), *Iris Histro*, hardy *Heaths* and *Snowdrops* were also good. The yellow-flowered *Berberis Bealii* and *Garrya elliptica* were excellent. *Bronze Banksian* medal.

Mr. Amos Perry, Enfield, had a table of hardy Ferns, chiefly *Polystichums* and the finer *Crested Hart's-tongues*. The former included the handsome *P. angulare divisilobum*, *productum* (with dense, flattish fronds and finely cut pinnae), *P. a. multilobum densum*, *P. a. pericristatum* and *P. a. divisilobum capitatum*. The best *Scolopendriums* were the *ramo-cristatum* forms, though all are good now by reason of their dark green, shining fronds. *Silver Flora* medal.

Mr. Clarence Elliott, Stevenage, had a neat rockery exhibit associating colonies of choice alpine with miniature rock shrubs. *Burser's Saxifrage* in one or more forms was in great force, the compact tufts bristling with buds and expanding flowers. *Snowdrops*, early *Cyclamen*, *Iris alata*, *I. stylosa* (unguicularis), very beautiful, and *Thymus carnosus* were also noted. One of the most distinct of the rock shrubs was *Juniperus tanacetifolius*, whose long, attenuated, horizontally inclined, plume-like growths command attention at once.

Messrs. J. Cheal and Sons, Crawley, arranged an exhibit of rockwork in conjunction with alpine, coniferæ and berry-bearing shrubs, the work neatly and artistically done. Of the alpine, *Saxifraga Boydii alba*, *Anemone blanda*, *A. b. alba*, and some fine *Iris histrioides* major were noted; while *Hamamelis*, hardy *Heaths*, *Pernettyas*, and the distinct and beautiful *Pyraecantha* (*Crataegus*) *angustifolia*, full of orange-coloured fruits, were also seen. The latter was a feature in itself. It was very charming.

Messrs. Cannell and Sons, Eynsford, Kent, again showed a remarkable collection of winter-flowering *Zonal Pelargoniums*, some three dozen vases of brilliant trusses being staged. This and a collection of equal size and merit staged by this firm on the 5th inst. constitute, we believe, a record for quality and quantity in January, and we speak from the experience of a quarter of a century of these fortnightly gatherings. The arrangement was the same as before, the trusses graced by light Palms and interspersed by *Primula malacoides*. The most brilliant were *Scarlet King*, *Maxime Kovalevsky*, *Prince of Orange*, *Helen Countess of Radnor* (rosy cerise), *Mars* (crimson) and the fine salmon pink *Barbara Hope*.

Messrs. Waterer, Son and Crisp, Bagshot and Twyford, arranged a nice rockwork exhibit, in which *Snowdrops*, early *Crocuses*, *Winter Heaths*, *Iris Histro*, *Cyclamen ibericum*, *Primula megacaulis*, *Hamamelis* and *Pyraecantha* (*Crataegus*) *angustifolia* combined with good effect.

Messrs. Wills and Segar, South Kensington, S.W., filled a long table with well-flowered groups of retarded Lilies, chiefly *Liliums speciosum* and *longiflorum* in variety. *Spiraeas*, also from retarded examples, were very good. In addition, the giant white and salmon coloured varieties of *Cyclamen latifolium*, which were exceedingly well flowered, call for special remark. Ferns and Palms were associated with the above. *Silver Banksian* medal.

Messrs. Allwood Brothers, Hayward's Heath, displayed a charming lot of Carnations, the fresh flowers of particularly high quality for January. Mary Allwood, as usual, was very fine, though we were more than struck by the pronounced Clove fragrance of *Bishton Wonder*, a sort of nondescript fancy variety—we say it in no derogatory sense—that for this attribute alone should find favour with all. *Champion* (scarlet), *Queen Alexandra* (pink), *Fairmount* (heliotrope), *Wivelsfield White* and *Salmon Enchantress* were others of special merit. *Bronze Flora* medal.

GARDENERS' ROYAL BENEVOLENT INSTITUTION.

ELECTION OF ANNUITANTS.

THE seventy-fifth annual general meeting of the above Institution was held at Simpson's Restaurant, Strand, London, W.C., on Thursday of last week, Sir Harry J

Veitch, F.L.S., presiding, supported by Messrs. Arthur Sutton, George Monro, P. C. M. Veitch, J. Hudson, Owen Thomas, W. Icton, H. F. Barnes, D. MacDonald, D. Inganells, F. Dimmock, F. G. Frogbrook, R. J. Cuthbert, and others. After the notice convening the meeting had been read, the minutes of the last annual general meeting were read, approved and signed. The seventy-fifth report and balance-sheet were next read.

The following are the most important points from the committee's report:

"The charity was founded in 1838, and has, during its existence, distributed in permanent and temporary assistance upwards of £160,000; and at no other period of its history has it done so much to assist the necessitous and suffering among unfortunate members of the horticultural community—gardeners, market gardeners, and nurserymen and their widows—as in the year under review.

At the beginning of 1914 there were no fewer than 265 persons on the funds—150 men and 115 widows, elected to annuities of £20 and £16 respectively for life. During the year twenty-three of that number died, eleven men and twelve widows. Of the former, seven left widows, who, being eligible and deserving, were placed on the funds without election to receive the widow's allowance of £16 a year, in accordance with Rule VII., D., and the committee now recommends an election this day of fifteen persons from an approved list of sixty-two candidates. Sensible as the committee is of the urgent needs of the many who are appealing for aid, it feels that it cannot, in view of the financial uncertainties in the immediate future, with prudence incur further liability by electing a larger number of the deserving applicants, much as it would like to do so.

The Victoria Era Fund and the Good Samaritan Fund have continued to be the means of much benefit and comfort in the past year, a sum of £260 15s. being given from the first-named fund to thirty-seven of the unsuccessful applicants awaiting permanent aid, and who had formerly been subscribers, in amounts *pro rata* to the length of time they had subscribed; and from the Good Samaritan Fund £216 was granted in various sums as temporary relief to forty-one applicants—subscribers and non-subscribers—whose cases were of a particularly distressing and pathetic character. It would be difficult to over-estimate the benefit conferred by these two funds, more particularly, perhaps, the latter, which enables the committee to give immediate assistance in cases of urgency and need. Unfortunately, while the amounts derived from the incomes of both these funds are limited, the applications for help are ever increasing. Any special contributions, therefore, for either will be most gratefully welcomed.

The committee has again to acknowledge the kindness of the following noblemen, ladies and gentlemen in opening their gardens to the public for the benefit of the charity: The Right Hon. Earl Beauchamp, the Right Hon. Lord Northbourne, Mary Countess of Ilchester, the Lady Wange, the Lady Battersea, Sir Frank Crisp, Bart., LL.B., J.P., C. W. Dyson Perrins, Esq., Roger J. Corbet, Esq., and Ernest J. Wythes, Esq.

To the organisers of successful concerts at Liverpool, Altrincham, Leyton and other places, as well as to the George Monro, Limited, Concert Committee, cordial thanks are tendered.

The committee refers with gratitude to the generosity of Mr. James Sweet, V.M.H., a warm supporter of the charity for many years, who, in addition to his usual liberal yearly gifts, gave a special donation of £500, and to his influence and interest the committee is also indebted for a legacy of £500.

The committee would also mention the kindness of Messrs. Arthur W. Sutton, V.M.H., and George Monro, V.M.H., for again providing a year's allowance to two unsuccessful candidates, who, it need scarcely be said, are deeply grateful.

The several auxiliaries (Bristol and Bath, Worcester, Devon and Exeter, Wolverhampton, Berkshire, Reading and District, and Liverpool) continue to be a source of much support to the Institution, and the committee again offers its sincere thanks to the honorary officers for their greatly valued services and interest."

The financial statement shows that the Institution is in a thoroughly sound condition, but, naturally, much more money is needed to assist all deserving candidates.

In moving the adoption of the report, Sir Harry J. Veitch said the committee were very grateful for the help they had received from subscribers during the year, but were very sorry that they could not ask subscribers to elect more than fifteen candidates. It was, however, at a time such as this, necessary to look to the future. The committee must keep faith with those annuitants already on the funds. They were expending the full amount yearly available from the Good Samaritan and Victoria Era Funds, which enabled them to give temporary assistance to deserving cases. The death-roll among subscribers had been heavy during the year, but he hoped others would come forward to fill their places. The auxiliaries had done good work, for which the committee were very grateful. The proposal was seconded by Mr. W. Icton, and carried unanimously.

Mr. Arthur W. Sutton, in proposing the re-election of Sir Harry J. Veitch as hon. treasurer of the Institution, paid a fine tribute to his work in the past. He had been privileged to propose this resolution for many years past and he hoped to be able to do so for many years to come. No one had served the Institution better than Sir Harry, and he had said "No" to a great many other calls for service so that he might devote his energy to the work they were all interested in. Mr. George Monro, in seconding, endorsed all that Mr. Sutton had said.

Mr. Monro next proposed the re-election of Mr. G. J. Ingram as secretary. It needed but few words from

him to do this, as they all knew that they had an excellent and hard-working secretary, who handled the work of the Institution in a wonderfully economical manner. Mr. W. Icton seconded, and the motion was carried unanimously.

After those of the committee who retired by rotation had been re-elected, with Mr. Bernard Crisp and Mr. A. J. Woods added to fill vacancies, and the auditors and arbitrators had been appointed, Mr. McKerchar and Mr. Harry J. White, the latter representing the Worcester Auxiliary, were elected scrutineers of the ballot.

CANDIDATES ELECTED.—The meeting then adjourned until later, when the result of the poll was declared. The following candidates were elected in the order named: Walter Crossman, John Smith, Emile Fornachon, James Hussey, John H. Witty, John E. Ellis, Mary Lockyer, Frank Reed, William Farr, Mary A. Stirling, George Murray, Catherine Spiney, Annie Howard, James Lee and John Jolliffe.

The chairman announced that Mr. Arthur W. Sutton had very kindly offered to provide £20 as a year's pension for one of the unsuccessful candidates, and this was granted to James Churchyard. Mr. George Monro also offered £10 for a year, this being allotted to Jane Langdon by request. As one annuitant had died since the voting papers were sent out, the committee, acting upon the power accorded them in the rules, elected Mary Ann Hopwood, who had been a candidate for seven years, to fill the place.

HOME-GROWN PRODUCE.

CHESTER PAXTON SOCIETY'S APPEAL.

UNDER the chairmanship of Mr. A. W. Armstrong, the twenty-seventh annual meeting of the Chester Paxton Society was held on Saturday at the Grosvenor Museum. In submitting the annual report and statement of accounts Mr. G. P. Miln, the hon. secretary, said: "It is now twenty-seven years since this society was established, and this is the first year in its history in which an exhibition of fruits and Chrysanthemums has not been held. This, as you all know, is due to the present unfortunate war, and in the interests of the society the committee thought, and rightly so, I think, that it would be unwise in the present circumstances to have held the annual exhibition last autumn. In common with many other societies and public bodies, this society is doing its full share in providing recruits for the new Armies, the sons of many of its members and also of its officials having responded generously to the appeals for young men to serve their King and country during this present national crisis. In the many object-lessons which this present war has provided us with, not the least important is the necessity for cultivating on a larger scale than hitherto products of the soil to ensure adequate food supplies for the inhabitants of the United Kingdom. Although it may not be possible to produce the whole of these in this country, it is our bounden duty to endeavour to increase these supplies beyond what has been done in the past. Towards this there are already indications that lands which have for some years been down in permanent pasture are now being broken up for the cultivation of cereals, which is certainly a step in the right direction. All movements of this kind go a long way to justify the existence of societies such as this, who have in the past done so much to encourage the extended cultivation of horticultural produce, particularly hardy fruits, in this district. Further, I believe I am right in saying that all members of this society will be prepared to do their utmost to encourage still further all movements of this kind in the future. It is yet too early to say definitely whether we will be in a position to hold the annual exhibition of fruits, Chrysanthemums, &c., next autumn, but I am sure I am voicing the feelings of every member of this society when I say that we hope that the present hostilities will have ceased long before then, and that our social and commercial life will by that time be on a fair way to resume their respective normal conditions."

Hearty votes of thanks were accorded to the officers and committee for their services during the past year, and officers and committees were elected for the present year. It was resolved that the question of holding an exhibition this year be deferred for three months.

VALE OF LEVEN AND DUMBARTON HORTICULTURAL ASSOCIATION.

THE SOURCES OF PLANT FOOD.

ON Wednesday evening, January 13, the usual monthly meeting of the above society took place in the side room of the Public Hall, Alexandria. On this occasion Mr. R. Dickson, of Messrs. Austin and McAsian, Glasgow, delivered a most interesting paper on "Some Sources of Nature's Plant Food." Councillor James Parlant presided over a good attendance. In dealing with his subject, Mr. Dickson alluded to the fact that plants obtained their chief food from the air in the form of carbonic acid. There are, however, many other substances the presence of which is necessary for the plants' growth. Ordinary soils contain them in sufficient quantities, but exhaustion takes place through time, and replacement is necessary. These chemical substances are known as manures, nitrogenous, potassium and phosphatic. These usually occur in the soil as calcium phosphates, and to dissolve them one must see that an acid is present. Nature has in a way provided the root tips to supply the necessary acid to render the phosphate suitable as a food. The nitrates occur in soils when there is decay of organic matter; they dissolve when formed. The application of nitrate must be carefully undertaken, as over-application may result in harm

to the crop. Potash is very often present in insoluble form, but to obtain it in a soluble form, rock weathering, combined with the action of carbonic acid, must be resorted to. Potash is most useful for supplying a necessary ingredient of the soil fertility, and the phosphate assists in the production of flowers and fruit. Other ingredients, such as lime, iron and probably a few more elements, all combine in keeping the soil fit and healthy for the bacteria in it. Lime, for instance, as a manure is also necessary in soil. The action of decayed organic matter sets up gases which are detrimental to plant-life. These are neutralised by the lime, which, combining with the gases, makes them harmless. Lime acts also as a destroying agent where plant-eating bacteria are present. The value of soot, leaf-mould, water, wood-ashes, farm-yard manure and other manures easily obtainable was also stated, and a great amount of information was gained in the course of what was a remarkably long and interesting paper. The chairman paid a high tribute to Mr. Dickson for his paper, and a vote of thanks to the essayist closed the meeting.

SCOTTISH HORTICULTURAL ASSOCIATION.

THE annual general meeting of the Scottish Horticultural Association was held in the Hall, 5, St. Andrew Square, Edinburgh, on the evening of January 19. Mr. David King, the retiring president, occupied the chair, and there was a good attendance of members. The annual report, which was approved, was of a satisfactory nature. The financial statement has already appeared in our columns. The report of the membership was of a satisfactory character also, the membership standing at 1,124, composed of 927 ordinary, 188 life, and nine honorary life members. The other items of the report were also of a gratifying nature. Office-bearers for the year were appointed as follows: Hon. president, the Marquis of Linlithgow; president, Mr. W. G. Pirie, gardener to C. W. Cowan, Esq., Dalhousie Castle; vice-presidents, Mr. D. Kidd, Carberry Tower Gardens, and Mr. J. Highgate, Hopetoun Gardens; members of Council in lieu of those retiring, Mr. J. S. Chisholm, Mr. J. L. Forbes, Mr. J. Fraser, Mr. J. C. Grieve, Mr. D. T. Johnston, Mr. J. Phillips and Mr. G. Stuart. Mr. A. D. Richardson was reappointed secretary and treasurer. Captain Stirling of Keir and Mr. D. King were elected honorary life members in recognition of their past services in office. It was agreed to take steps to form a roll of honour of the members who had joined His Majesty's Army. Several other items of business were also disposed of.

Norfolk and Norwich Horticultural Society.—

At the annual meeting of this society, held at Norwich, the hon. secretary, Mr. B. Knyvet Wilson, in his report was able to announce that the balance in hand stood at £79 5s. 5d. The membership was 510, an increase in both cases on those of the previous year. After careful deliberation by the committee it has been decided—unless anything unforeseen happens—to hold the three shows of the society as usual during 1915. The spring show will be held at Norwich on April 22, the Rose and summer show at Earlham Park, Norwich, on July 1, and the Chrysanthemum and autumn show at Norwich on November 18, 19 and 20. J. A. Christie, Esq., Framingham, near Norwich, was elected president for the year. Mr. John Clayton announced that one consignment of vegetables and fruit had been despatched to the Navy.

Dunfermline Horticultural Society and the War.—

This society having promised a weekly supply of fruit and vegetables for three months to the men serving in the British Fleet, the third consignment was sent on January 20. This included Artichokes, Brussels Sprouts, Cabbages, Carrots, Greens, Leeks, Onions, Parsnips, Potatoes, Savoys, Turnips and a case of Oranges. Acknowledging former consignments, Mr. E. Jerome Dyer, London, hon. secretary of the Vegetable Products Committee, says: "I am very much obliged for your letter supplying me with particulars of your consignments. I think your supplies are extraordinarily good, and far more than we expected when you started. If I may be permitted to say so, it is an evidence of an excellent spirit on the part of the people of Dunfermline, and proves that they are prepared even to deny themselves for the good health and welfare of the men to whom we look for so much."

THE GARDEN.

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NOTES OF THE WEEK.

The Chelsea and Holland House Shows.—The Royal Horticultural Society's Chelsea Show will be held in the Royal Hospital Gardens, Chelsea Embankment, on May 18, 19 and 20; and the Holland House Show, Kensington, on July 6, 7 and 8. Plans, schedules and entry forms can be had on application to the Secretary, Royal Horticultural Society, Vincent Square, Westminster, S.W.

Planting Roses in Early Spring.—On page 67 will be found an article dealing with some mistakes that amateurs often make when planting Roses. We think it desirable to point out that, although November and the early part of December is undoubtedly the best time of the year for planting Roses and herbaceous plants, they can also be quite successfully planted during February and March, providing always that the weather is open and the soil in fit condition for the work. Nurserymen still have plenty of good bushes and plants to dispose of, and we trust our readers will do all they can to purchase these before the planting season is over.

The Gibraltar Candytuft.—*Iberis gibraltarica* is a handsome member of the perennial Candytuft family. Evergreen in character, it flourishes in the milder parts of the country, where it may generally be employed in level planting. In colder, bleaker districts or in soils that are rich and retentive of moisture it is more satisfactory to give it a special position where soil and drainage are both under control. It shows to best advantage and proves thoroughly reliable as a perennial when planted in a dry wall fully exposed to sun. Failing such a position, then any sharp bank will meet its requirements. The soil should be liberally mixed with old mortar rubble or crushed chalk. To the latter it shows striking partiality. It flowers in the open towards the end of April and during May. The blossoms are a delicate shade of rose lilac, and are carried in large, rounded heads in such profusion as makes the leaves scarcely discernible. A native of Gibraltar, it has been grown in gardens since 1732.

Propagating *Statice latifolia* by Root Cuttings.—This is without doubt the most attractive and vigorous of the Sea Lavenders, either for the borders or the wild garden, particularly when seen in bold groups. Plants may be raised from

seed, although this method is not always to be depended upon. A better way of raising a stock of good plants is by cuttings of the roots. An old plant should be lifted now, some of the roots cut into lengths of from 2 inches to 3 inches, and put in pots of sandy soil with the apex just protruding. If possible, they should be placed in a little warmth. Small shoots will soon appear, and, as they progress, gradually harden them off. By June, with careful treatment, the plants will be ready for planting out in their permanent positions.

Insects on the Roots of Plants.—An investigation has been commenced at Wisley into the

as it is not desirable to risk infecting Wisley with these insects.

Winter-Flowering Honeysuckles.—For the sake of its deliciously fragrant white flowers at this season of the year *Lonicera Standishii*, a Chinese Honeysuckle, is well worth a place on a wall, particularly near the window. It is quite hardy and will succeed in the shrubbery, but the flowers with their unmistakable odour of Orange blossoms are not produced so freely or developed at so early a season as when against a wall. *Lonicera fragrantissima*, another Chinese Honeysuckle similar to the subject of this note, is also well worth attention. We recently saw

some good plants growing in pots and doing exceptionally well, and although the creamy white flowers were not particularly showy, they filled the atmosphere of the conservatory with their fragrance.

A Blue Flower for the Greenhouse.—One of the most attractive plants of recent introduction for the warm greenhouse is *Pycnostachys Dawei*, a member of the Labiateæ family, with dense, terminal spikes of deep blue flowers about five inches long, the plants themselves usually attaining the height of from 4 feet to 6 feet. A native of Uganda, it was first discovered by Mr. Whyte in 1898, but it was not until 1905 that seeds were sent to Kew by Mr. M. T. Dawe. It is closely allied to the Coleuses, but the genus *Pycnostachys* can be distinguished by its needle-like calyx teeth and denser spikes. It is now flowering in the Cambridge Botanic Garden, and makes a pleasing contrast with the yellow flowers



A COLONY OF THE GIBRALTAR CANDYTUFT, *IBERIS GIBALTARICA*, IN THE ROCK GARDEN.

mealy bug and woolly aphis, which infest the roots of so many plants in greenhouses and rockeries. There are several insects concerned, and the first thing to determine is how far each of these pests attacks plants in general or to what extent each is limited in its food plants. The ultimate outcome hoped for is a simple, practical remedy. The investigator would be very grateful for infected plants or for specimens or infected roots of plants, with the names attached. The enquiry would be still more assisted if those having infected plants would permit the investigator to inspect them. Specimens and enquiries may be sent to Professor Lefroy, Imperial College of Science, South Kensington,

of the beautiful but seldom-grown *Lindenbergia grandiflora*.

Useful and Injurious Earthworms.—On another page, under the heading of "Societies," we publish a report of a lecture on earthworms given by the Rev. Hilderic Friend to the members of the Birmingham Gardeners' Association. This gentleman has already discovered that, while some kinds are beneficial in the garden, others are of an injurious character. We understand that he is still investigating the matter, and would be glad to receive samples of worms from anyone who would be good enough to send them. His address is The University, Edmund Street, Birmingham.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Mossy Saxifrages Turning Brown.—It may interest "Grey Court," who you replied to on page 36, issue January 16, to know that this may be caused by damage during frost. I have a broad border of Mossy Saxifrages, and last year, when they were frozen white, some small person, no doubt fascinated by the crunching noise, walked down the middle of the border. The result was a row of small brown footmarks, which lasted all the summer, but filled up in the autumn.—WALTER DE H. BIRCH, *Walton-le-Dale, Lancashire.*

Outdoor Flowers in Midwinter.—With reference to the note on the above subject in your issue of January 23, I should be glad if you would

mentioned in your note are Cyclamen Coum and Lonicera fragrantissima. There is really no need for a greenhouse in order to obtain winter flowers. After all, the Christmas Rose is more beautiful than anything you will find in the average conservatory at the same season.—ERNEST BRYSON, *Gloucestershire.*

Onions in the West of Scotland.—The accompanying illustration of a bed of Onions in a West Scotland garden may be of interest now that the time for sowing seeds for exhibition bulbs is here. The varieties are Cranston's Excelsior and Ailsa Craig, and the average weight of the Onions is three-quarters of a pound. The size of the bed is 15 yards by 10 yards, and 2,000 Onions were taken from it. The soil is good loam, treated with cow-manure and Thompson's Vine Manure.—D. M. G.

Green Fly and Mildew on Roses.—I have noticed in THE GARDEN that so many Rose-

Roses are all fully in leaf, the top of the ground is turned over so as to cover the lime. Before we treated the Roses in this way they used to be white with mildew, and some Roses, which grow where we cannot treat them in this way, still suffer from it.—THACKERAY TURNER.

Shows, Schedules, and Judges.—It was with considerable interest that I read in your issue of January 16 the letter from "Exhibitor" *re* flower shows, schedules, judges, and considerations shown to exhibitors by the various flower show committees, and I quite agree with him and believe it possible to effect an improvement all round. In making up a schedule, a committee could not do better than follow the suggestions given in the Royal Horticultural Society's "Code of Rules for Judging, Schedule-makers, Judges and Exhibitors," and if all societies informed their members and judges that these rules would be strictly enforced, many crooked paths would be smoothed over and unnecessary worry and ill-feeling avoided. As to what are hardy flowers and what are not, it depends more on the district than on anything else, as what will do well in Wigtownshire would be useless in Inverness-shire. If it was the rule that all collections of flowers were to be judged by points, it would do away with (to a certain extent) one or two probably greenhouse-grown bunches carrying the premier honours where the other lots were better all over. By point judging in flowers, allow a maximum of 10 points to each bunch, divided thus: For quality, 3; freshness, 2; rarity or difficulty of cultivation, 3; elegance of arrangement, 2; total possible, 10. Then over the whole stand allow a maximum of 5 points for general arrangement, blending of colours, naming, &c.

The size of bunch in all cases to be stipulated or table space allowed. The staging in all cases to be erected by the committee. A points card to be given to each judge, who would be responsible for the number of points against each bunch. The cards to be put in a conspicuous place for the benefit of competitors and the public alike. This would to a great extent do away with the inefficient judge, as no one would have the audacity to come forward to act as such who had not a good knowledge of what he had undertaken. Committees generally are to blame for inefficient judges by appointing men who hold high positions in the horticultural world but who have really done nothing as exhibitors, and I maintain that unless a man has been, and is, a competitor he is not qualified to judge. In regard to assistance lent to exhibitors by the committees, I recommend the principal flower show committees to take a copy from the Carnegie Dunfermline Trust. What exhibitor who has once been to that society's Rose show but who brims over at the good treatment he received at the hands of the officials. By a note to the secretary a conveyance meets your train. On arrival at the park willing hands find you water, vases, watering pans, &c. The secretary will find you comfortable hotel accommodation at very reasonable terms. The prize money is paid over practically as soon as the judging is finished, while at the close of the show all boxes, stands, &c., are carefully packed up and put on rail without any trouble to the competitor. Possibly this could not be done at large gatherings where the trade firms put up large exhibits; but were the directors in charge as anxious to assist as those in the town of Carnegie, no doubt things could be made much more convenient.—SCOT EXHIBITOR.



A GOOD BED OF ONIONS IN A SCOTCH GARDEN. THE VARIETIES ARE CRANSTON'S EXCELSIOR AND AILSA CRAIG.

call attention to one of the most valuable winter-flowering shrubs ever introduced; I mean *Prunus miqueliana*. I bought a small plant some years ago, and it is now a bush of considerable size, every shoot, from before Christmas onwards, being covered with its beautiful white flowers, which adorn the garden and, if cut, last a long time in water, forming the most charming and distinctive house decoration imaginable. This plant is an old introduction, but when shown at a Royal Horticultural Society's exhibition two years ago was given an award of merit. It ought to have had a dozen, but since getting its diploma my specimen has shown distinctly increased vigour, and is plainly trying to live up to its position; and its price has jumped to 7s. 6d. in the only catalogue in which I see it listed. I paid 4d. Why does not somebody undertake its propagation and get it widely known? It requires no growing; it grows. Two other gems of the winter not

growers seem to suffer from green fly and mildew. I used to suffer, but do not now. I think I ought to give your readers the reasons why I now escape these plagues. I will not take up your space by telling how I came to find the cures, but just state them. It ought, perhaps, first to be said that our soil here is sandy, with very little lime in it. As soon as green fly begins, I have all the Roses well hoed round, and then a garden water-barrow is filled with water; about half a gallon of guano is put in and well mixed, and the Rose roots watered with it. I have never known more than three waterings needed, and often one is enough to clear the bushes. For mildew, just before the Roses show signs of coming into leaf I have good Dorking lump lime slaked, and when it is in the form of flour it is thrown from a shovel thickly over the ground below the bushes until the ground looks as if there had been a fall of snow. When the

The Double-Flowered Camomile.—I shall be very pleased to send your correspondent, to whom you replied on page 47, issue January 23, seedlings of the double-flowered Camomile in the spring if she will only remind me, as it is quite a weed here.—T. L. HARRISON, *Baas Hill, Broxbourne, Herts.*

The Mountain Clematis.—All that "H." says regarding Clematis montana, page 43, issue January 23, is thoroughly deserved by this most beautiful climber. There are, however, two points which might be usefully mentioned. One of these is the great superiority of C. montana grandiflora; the other is the desirability of securing these plants on their own roots. C. m. grandiflora was first brought under my notice by the late Mr. F. W. Burbidge, who had a simple pergola clad with it in the Trinity College Gardens, Dublin. It is greatly superior to the typical C. montana, and is easily struck by cuttings or layers. This brings me to the other point—that of having the plants on their own roots. This warning has been especially necessary with the red variety, C. m. rubens, which has apparently been grafted on other Clematises, and has, in consequence, died off in a number of gardens. This is a great disappointment, as it is a charming variety of a plant of the highest beauty.—S. A.

Narcissus Treasure Trove.—The unearthing of some pots of the above from a bed of fibre recently, where they had been plunged, brought back to memory the beautiful form in which this little white trumpet Daffodil was shown by my friend Mr. Christopher Bourne at the Birmingham Show last April. Among all the good things in his fifty it was, perhaps, nearly the best. Some years ago the late Rev. G. P. Haydon brought a bunch of flowers for my inspection at the Tunbridge Wells Daffodil Show; for some reason, peculiar to his eccentric method of naming his flowers, he had christened it Castaway. I promptly did a deal with him for the stock, potted a few of the bulbs and planted the rest outside. When it began to flower the following spring I was so charmed with it that I thought it worthy of a better name, and Treasure Trove, the suggestion of my wife, was one that seemed to fit it exactly. A little smaller than Mme. de Graaff and flowering a good deal earlier, it is of far more perfect form than that variety when well grown.—F. HERBERT CHAPMAN.

Winter-Flowering Heaths.—The excellent article on these valuable plants on page 40 of THE GARDEN prompts me to ask the general experience with regard to the flowering of Erica mediterranea hybrida or E. hybrida. With me it is exceedingly irregular in its dates of coming properly into flower. I have flowered it here for nine winters, and for several years previously in my former garden, which was quite near the sea. In both gardens it proved very uncertain in its coming fully into flower. I have often had it as early as November, but sometimes it could not be said to be fully in flower until well-nigh the end of January, although a few sprays might be in perfect bloom. E. carnea is more regular with me, and among that charming set of varieties sent out by Messrs. James Backhouse and Son one called E. carnea præcox rubra has been the first of the carnea varieties to flower ever since I obtained it in the autumn of 1913. These winter-flowering Heaths are of extreme, though quiet, beauty, and with the earliest bulbs give a charm to the garden in their time.—S. ARNOTT, *Sunnymead, Dumfries.*

HOME-GROWN VEGETABLES AND OUR FOOD SUPPLY.

CO-OPERATION NEEDED.

WITH the price of all kinds of foodstuffs creeping up, the present seems an opportune time to draw the attention of our readers to the desirability of cultivating as many vegetables as possible during the coming spring, summer and autumn. We do this in no sense of alarm, but purely as a common-sense precaution, so that, should the necessity arise, ample supplies to meet all demands will be available. It is quite certain that the next few months will bring to our hospitals and Red Cross establishments large numbers of wounded and sick soldiers, and supplies of fresh, wholesome vegetables will undoubtedly be very welcome to those who have undertaken the kindly duties of caring for the men who have been broken in war.

Horticultural Societies Should Help.—In our last issue we published particulars of what is already being done by the Dunfermline and the Chester Paxton Horticultural Societies respectively. The first named has already undertaken to supply the British Fleet with consignments of fresh vegetables and fruit for three months, and the latter has wisely advised its members to grow as many as may be reasonably possible. Nearly every day we receive notices that local horticultural societies are abandoning their shows this year; but the committees, usually composed of professional gardeners and keen amateurs, have not been dissolved, and the societies are still in existence. We therefore suggest that, as an outlet for their natural energies, these societies should seriously take the question of vegetable supplies in hand so long as the war lasts.

How Assistance Can be Rendered.—A local committee might, first of all, point out to the inhabitants of their district the desirability of growing good vegetables, and state plainly that capable members would be willing to give practical advice to all who needed it. In many gardens there are plenty of spaces now occupied by dilapidated sheds, or lumber of various kinds, that could be cleared, dug and manured, and soon brought into suitable condition for at least Potatoes. This, willing members of the committee could point out. Also, to bring an element of contest into the efforts of the townsfolk, it might be possible to grant certificates, the cost of which would be very trifling, to the garden or plot that showed the greatest productiveness of the most useful vegetables. Hints on sowing and planting, with the best varieties to choose for the district, could be circulated, or, if time permitted, given personally.

The Supply of Seeds.—Even better than giving such hints on varieties would be the supplying of seeds of suitable sorts by the committee. The position of the average small grower in obtaining good seeds of really first-class vegetables is often a difficult one. He, naturally, hesitates to purchase expensive packets which contain far more than he requires. But a local committee could easily arrange with a seed firm of repute for a supply of suitable kinds in bulk, and these could be sold to inhabitants in small quantities as required. We know perfectly well that any good seed firm would much rather execute a substantial order of this kind than a multitude of small ones, and the trade generally, as well as amateurs,

would be benefited by some action of this kind. Take the case of Potatoes, the most important of all our vegetables. It is now well known that an annual change of sets, and preferably those from a considerable distance, is far better than planting those that have been grown locally year after year; yet the cottager or small amateur, who only requires his modest peck or two, does not care to go to the trouble entailed in securing this change.

The Collection of Surplus Vegetables.—It is, however, in the collecting and despatching of surplus vegetables to hospitals and other establishments that local horticultural committees could probably do the most useful work of all. In most gardens, at one time or another, there are wholesome vegetables to spare; but the owner, who has, say, half a dozen Cabbages, a bunch or two of Onions or a peck of Potatoes over and above his immediate requirements would scarcely think it worth while to pack and send them to where they are most required. But let the local committees inform the inhabitants of their districts that vegetables of this kind would be received once a week at some depôt, and be suitably packed and despatched to some establishment where they are needed, and we feel sure that there would be plenty received to meet demands.

The foregoing are points that seem to us worthy of consideration in every district where a local horticultural society is in existence. Probably all would not be practicable everywhere, but the ideas could, we feel sure, be moderated or revised to suit local conditions. The question of our food supply is a national one, and it is the duty of every able-bodied person to do all that is possible to render the soil fertile and productive at a time like the present. Next week we hope to publish an article giving some simple hints on how to make the most of vegetable plots. By a preconceived plan of intercropping we know that far more might be obtained from a given area than is usually the case. In the meantime we invite the opinions of our readers on the subject, but we hope letters will be as concise as possible.

SOME HARDY LILIES.—VI.

BY SIR HERBERT MAXWELL, BART.

SUB-GENUS MARTAGON.

(Continued from page 52.)

Lilium pyrenaicum, the Yellow Turk's-cap, is a generous plant, patient of neglect and, in my opinion, worthy of more esteem than it is the fashion to bestow upon it. People take offence at the odour of its blossoms; but as the plant does not diffuse it to any distance, they need not put their noses to it. If they do, they will receive a dab of brilliant orange scarlet pollen from the anthers that hang so prettily out of the bright yellow Turk's-caps. Some friendly hand planted a quantity of the great bulbs of this species nearly one hundred years ago in the grass at Monreith; and there they remain, rising year after year to their modest splendour in June, a sure sign that summer is nearing its height. This is perhaps the best way to employ it, for I do not see any difference between those that are thus grown in the wild and some upon which, for auld lang syne, I have bestowed a choice place in a border of rather heavy loam. The scarlet-flowered variety of this Lily is a very gay affair, equally good-natured as the type. A group of the two colours mixed is very pleasing.

L. pomponium is a scarlet Turk's-cap, with flowers like scarlet sealing-wax, as bright as those of *L. chalcedonicum*; but it is a much more graceful plant. The stem is clothed with crowded linear leaves with white edges, each with a spiral twist following, says Dr. Wallace, the course of the sun. It grows, or ought to grow, 3 feet high; but it does not always receive the right treatment in our gardens, for it dislikes an open peaty soil, and only comes to its best and proves permanent when planted 4 inches or 5 inches deep in rather strong loam impregnated with lime. It flowers in June, fully a month earlier than *L. chalcedonicum*, and the most modest collection of Lilies ought to include this brilliant species.

L. superbum, the Swamp Lily.—The specific titles prescribed by botanists do not always predicate a sense of humour in those who devise them. For instance, it strikes one as incongruous to apply the epithet "*gigantea*" to a Squill (*Chionodoxa*) 6 inches high, to indicate its superiority in size to others of the same genus. But he who christened the Swamp Lily "*superbum*" perpetrated no exaggeration, for it is a truly superb creature, rising erect to a height sometimes of 8 feet or 9 feet, with from twenty to thirty blossoms on long arching pedicels, the recurved divisions of the perianth being bright orange spotted with claret. The Swamp Lily is the representative in the North American Eastern States of the Panther Lily in the Western States, and only asks for similar treatment in cultivation—that is, to have its rhizomatous roots laid 5 inches deep in moist peaty loam with a sprinkling of sand round the bulbs to encourage rootlets. Its flowering season is from the end of July through August.

L. tenuifolium is a dwarf Turk's-cap hailing from far Siberia, with brilliant red flowers opening in June and carried on slender stems little more than 15 inches high. It is a plant, therefore, and a choice one, for the front of the border, where the bulbs should be planted 4 inches or 5 inches deep in very sandy soil enriched with well-rotted farmyard manure and not suffered to lack water when growing. Thorough drainage is essential to their persistence through the winter; even so, they are short-lived, for their diminutive size does not enable the plant to store up enough vitality to survive the effort of flowering more than twice or thrice. It ripens seed, however, whence a fresh stock may be raised. This Lily has begotten upon the white Martagon a hybrid of charming quality and satisfactory constitution. It is dwarf, but more vigorous than *L. tenuifolium*, and bears a profusion of little Turk's-cap flowers of a rich apricot hue. It takes rank among the choicest of small Lilies, and is known as Martagon Golden Gleam.

L. testaceum (syn. *isabellinum*, *excelsum*), the Nankin Lily, is one of the loveliest of the race, carrying in July a coronet of large flowers to a height of 5 feet or so on a slender but steadfast stem closely set with narrow leaves, each of which is spirally twisted, suggestive of a delicate design in metal-work. The corolla is of a delightful shade of apricot, slightly tinged with flesh colour, and the orange anthers within the bell give the whole inflorescence a very rich character. The origin of this Lily is not known; as it has never been found in a wild state, it is believed to be a hybrid, probably between the Madonna Lily and *L. chalcedonicum*. The late Dr. Wallace reported that it was first noticed among some seedlings raised at Erfurt in 1846. If its parentage has been correctly divined, the Madonna strain



A BEAUTIFUL GROUPING OF LILIUM TESTACEUM IN THE BOTANIC GARDEN, OXFORD.

has proved dominant, for in stature and carriage it resembles that species, and the vivid vermilion of the Turk's-cap has been softened into the delicate tint shown in the flowers of the offspring. In cultivation the Nankin Lily requires similar conditions to the Madonna, save that it is less patient of drought. Unfortunately, of late years it has fallen in many gardens under the scourge of the fell fungus *Botrytis*; wherefore spray should be applied diligently on the first symptom of the mischief, for it is worth any amount of pains to preserve this beautiful flower from disfigurement.

(To be continued.)

DAFFODIL NOTES.

Leedsii Classes.—As I mentioned in my last notes, Mr. Morton has raised a most interesting point about the grouping of Leedsii varieties for show purposes. He suggests that when large-cupped and small-cupped blooms are exhibited together, judges are inclined to favour the latter, all else being equal. In his letter to me he quotes as definite instances to prove his contention: First, the names of the three winning collections in Section III. (London), where the first prize went to Katherine Spurrell, White Slave and Evangeline; the second to White Queen, Potent and Lord Kitchener; and the third to White Queen, Lowdham Beauty and Lord Kitchener. Secondly, the prize-winners in Section II. (London), where Evangeline, Diana, Lowdham Beauty, Waterwitch, White Lady and Marguerite Durand were placed first; Phyllis, Eoster, White Lady, Diana, Mrs. Langtry and Candidata second; and much the same class of flower third. Thirdly, he instances Group B at Birmingham, where the winning lot was composed of White Slave, Duchess of Westminster, Katherine Spurrell, Evangeline, Bianca and White Lady; and the second, third and fourth of precisely similar varieties. The obvious comment on Mr. Morton's examples is that he has ignored what happened in the open Leedsii classes at the above exhibitions; that he may not be aware that in Group B at Birmingham the price of bulbs is limited; and that Giant Leedsis are rather expensive.

If we take these facts into consideration along with those put forward by Mr. Morton, I do not think it can be said that small cups are generally favoured more than the "giants." I well remember the long discussion that went on in sub-committee before it was finally decided to suggest to the Royal Horticultural Society's Narcissus committee the present wording for Class IV. It was thought that it was not worth while dividing up the Leedsis, as in a year or two the smaller type would automatically disappear. The unexpected seems to have happened. The "bantams" have taken an unexpected lease of life,

and lovely flowers like Eoster and Wendy are the potential equals of Lowdham Beauty and Lord Kitchener. What is to be done?

Before I make my suggestion I would like to call my readers' attention to the advent of the exceedingly beautiful new type of bloom which has made its appearance within the last two years, and of which Crystalline and Mogador are exquisite examples (see illustration and note in the Royal Horticultural Society's 1914 "Daffodil Year Book.") These pointed perianths have come to stay, I think. They are, too, charming, especially when they surround a "duck" of a little trumpet or trumpet-shaped cup. I venture, then, on this proposal:

That in future all schedules should distinctly state that (whether the number of blooms required be three, six, nine or twelve), *diversity of type* is absolutely essential, and that the judges will be instructed to be very particular about this stipulation in awarding of the prizes. This could very easily be done in all schedules for 1916 if it finds general favour. Perhaps those interested will communicate with me, so that I can allude to it again in future notes.

Judging at Birmingham.—I rather rubbed my eyes when I read in *THE GARDEN* for January 9 Mr. Grindrod's suggestion that we allow prizes to be awarded to collections which do not comply with the schedule. Now, if there is one thing that I am always down on, it is this. As the Chairman of Committee, I have a good deal to say in all that goes on; so let me assure Mr. Grindrod that we are not slackers, but that those in authority try to see that all is done according to Cocker. As far as we are able, we see that there are no slips; but so great is the usual competition that it is impossible to go round all the classes and microscopically inspect each individual exhibit on the first day of the show. The onus of finding any wrong is, according to our Regulation 12, thrown on the competitors themselves, and if none of them complains, it is taken for granted that all is in order. Perhaps we should appoint an official inspector to go round and see that each flower is in its right place, and not leave it to competitors to complain. Anyhow, I will see what can be done. Let me assure Mr. Grindrod that the "S. T. H. W." in Class 22 was not the "S. T. H. W." in Class 25. The letters are the private mark of the exhibitor, who might mark every seedling he has got "A. B. C." or "S. T. H. W." and exhibit them as such; but this does not make a triandrus hybrid into a Tazetta hybrid.

I have not had much difficulty in finding the other seven or eight instances alluded to, and I see I am one of those in fault, as I exhibited a Lady Jellicoe as a 2B, when it is listed as 3B. It is possible there are two Lady Jellicoes, as mine is *very* like Lena Parker, which is down as a 2B. The President that I staged is one of Wheadon's introductions, and quite different from The President of Haydon. In the case of Sophy Primrose, I must have omitted to look up my classified list. It is one of the rather doubtful ones, but that is all the more reason why I should have done so. As no protest was made, I was not aware of my slip until I looked matters up for these notes. "Hurry and bustle I hate," says a comic song. So do I on a show morning, but they are inevitable in my case, as they doubtless are in my friend Mr. Bourne's, who was an even greater offender than myself at last year's show.

Both Mr. Watts and Mr. Chapman also staged flowers in wrong classes. I had no idea of these slips until I read Mr. Grindrod's note and began to go over the lists in the report, and I cordially thank him for calling attention to the matter. These things should *not* happen at the leading Daffodil show, and I will see that they are carefully

considered at our next committee meeting. No one is keener than I am for rigid adherence to schedule regulations, and now that our delinquencies have been pointed out, some method must be devised to reduce the possibility of their recurrence to a minimum. As Colonial eyes scrutinise our proceedings very carefully, it would be a thousand pities were an impression to gain ground in New Zealand and elsewhere that the Midland Daffodil Society allows great latitude in its members' interpretation of its schedule. It is clear that our trusting to the protests of exhibitors has been tried and found wanting. It seems to point to the institution of a show inspector.

The War and Shows.—I am busy getting together a list of the Daffodil shows and their dates for 1915. Some are already abandoned, but the majority of societies at the present time propose to hold theirs as usual. As soon as I can issue a complete statement I will do so. I would be very much obliged, if these words meet the eye

full-grown larvæ. The problem is a twofold one. How long must a merodon (inside a bulb) be immersed to make sure of killing it? And how long will a bulb stand immersion without detriment? Will Mr. Adams kindly relate his experience?

JOSEPH JACOB.

A BEAUTIFUL ROCK GARDEN FLOWER.

WHEN covered with flowers, the Androsaces are among the choicest of plants for the rock garden. Some of the more spreading kinds form broad tufts of foliage, some deep green in colour, like *A. Laggeri*, while others have silvery foliage, like the subject of this note. *Androsace sarmentosa* is a native of the



ANDROSACE SARMENTOSA, A BEAUTIFUL ROCK GARDEN PLANT WITH ROSETTES OF SILK-LIKE FOLIAGE.

of the secretary or any other member of a Daffodil society which was not included in the Royal Horticultural Society's 1914 "Daffodil Year Book," if he would communicate with me. I want that book to be as complete as possible.

Drowning Out the Merodon.—Mr. C. L. Adams, whose note appears on page 38, January 23 issue, apparently knows the trick of how to drown out the merodon. I wish he would tell us how it is done. Mr. George Stocks ("Daffodil Year Book," 1914, pages 56-57) put five bulbs suspected of containing merodons in water for forty-eight hours. Two were not infested with the grub—a grub came out of one of the other three and was found alive at the bottom of the water. It died in two days. From the other two the grubs were extracted and were soon able to eat their way into fresh bulbs.

Again, Mr. Charles E. Shea (article in Cartwright and Goodwin's 1914 List) states that total immersion for three days is not sufficient to destroy

Himalayas, from Sikkim to Kashmir, at elevations of 11,000 feet to 12,000 feet. It is a somewhat variable plant, a few of the forms approaching *A. lanuginosa* in character, but it is rather less silky. The leaves are also broader and borne in larger rosettes, which send out stolons that root as they spread, soon forming broad carpets studded with umbels of rose-coloured flowers in May. The flowers are deeper in colour towards the centre, which is pale yellow. Even when not in flower the silky rosettes are very attractive. Given a rocky ledge in full sunshine, planted in light sandy loam and peat, it soon makes itself at home. As these woolly-leaved plants from the higher elevations suffer a good deal from damp in winter, it is advisable to cover the whole plant with a piece of glass raised a few inches above it and in a slanting direction to throw off the rain. According to the "Flora of British India," four varieties are found in the Himalayas,

of which the largest form, *A. foliosa*, is now recognised as a distinct species. The last mentioned is a taller plant with larger, less silky leaves, and umbels of pink flowers borne on stems about nine inches high. *A. sarmentosa* and its varieties are easily increased by seeds, and the numerous offsets. W. I.

SEED-SOWING UNDER GLASS.

WITH the advent of the month of February, seeds of many subjects intended to flower in the greenhouse later on are sown.

Prominent among them are Begonias, Gloxinias, Streptocarpuses and Gesneras, all of which require much the same treatment. As the seeds are very small, and in many instances fairly expensive, a considerable amount of care should be taken in sowing them and in bringing the tiny plantlets through their earlier and more critical stages.

Too much care cannot be taken with the preparation of the compost on which the seeds are to be sown. A very suitable mixture may be made of two parts loam to three of leaf-mould or peat and a liberal sprinkling of silver sand. Leaf-mould, if good, is preferable to peat, but it must be of first-rate quality and prepared from Oak and Beech leaves. All the ingredients should be thoroughly sterilised in order to destroy any insects or vegetable matter. Unless this is done, a tiny moss is apt to crop up and choke many of the seedlings. This compost should be rubbed through a sieve with a quarter-inch mesh, laying the rougher portions on one side. Whether pots or pans are used in which to sow the seed, they must be quite clean and effectually drained by means of broken crocks in the bottom. Then over these may be placed a layer of the rough portion of the compost, and the pot or pan then filled to within half an inch of the rim with that which has passed through the quarter-inch mesh. A finishing layer, on which the seeds are to be sown, should consist of the same compost sifted through a sieve with an eighth of an inch mesh. The whole must be pressed down moderately firm and made quite level. The soil should be thoroughly watered before the seeds are sown, a better plan than using a fine rose being to stand the pot or pan nearly up to the rim in a vessel of tepid water. In this way the liquid will enter by the hole in the bottom, and gradually soak the soil without disturbing the surface.

While the soil is still wet the seeds should be sprinkled thinly thereon. Minute seeds will require no covering, except it be a pane of glass or a sheet of paper laid over the pot or pan. In a structure

with a minimum temperature of 65°, rising during the day, the seeds will soon germinate. Directly this takes place the glass or paper should be removed, but especial care must be taken to shade from the sun's rays, as while so delicate a few minutes' exposure to bright sunshine will permanently injure the young plants. Whenever the seed pots want water, it should be given as before directed.

When the young plants are large enough they must be pricked off. This is an operation that requires considerable care. The pots should be prepared the same as detailed for the sowing of the seeds, and a fine-pointed stick used as a dibbler. As the young plants develop they may



ORNAMENTAL-LEAVED VINES GROWING ON POLES AND CHAINS IN THE GARDENS AT ALDENHAM HOUSE, ELSTREE, HERTS.

be potted singly, and shifted into larger pots when they require more room.

Other subjects that may be grown in the same temperature as the preceding, but whose seeds, being larger, do not require such careful manipulation, are: *Acacia lophantha*, a subtropical plant remarkable for its much-divided leaves—seeds should be soaked in warm water for twenty-four hours before sowing; *Artemisia judaica*, with gracefully cut silvery foliage, valuable for summer bedding; *Cannas*, well-known foliage and flowering plants, whose seeds, like those of the *Acacia*, should be soaked in warm water for twenty-four hours prior to sowing; *Eucalyptus globulus*, the well-known Blue Gum, so much used in the flower garden in the summer; *Grevillea robusta*, remarkable for its finely cut Fern-like

foliage; *Impatiens Holstii*, one of the best of the Balsams for the embellishment of the outdoor flower garden, with bright vermilion-coloured blossoms; *Lantanas*, pretty, free-flowering plants, which can be readily raised from seeds; and *Ricinus* (Castor Oil Plant), which presents such a bold feature in the flower garden during the summer.

A somewhat lower temperature, say, that of an ordinary greenhouse, is during February and March available for the raising of a vast number of seeds, including such well-known subjects as *Antirrhinums*, now so much used; *Asters* of different sorts; *Brachycome iberidifolia* (Swan River Daisy); *Campanula pyramidalis*, a well-known and popular biennial; *Giant Hemp*, a grand plant for the subtropical garden; *Clarkias*, to form a succession to the autumn-sown plants; *Dahlias*, if it is desired to raise these from seeds; *Helichrysums*, a very pretty race of *Everlasting Flowers*; *Lobelia speciosa*, whose blue flowers are always much appreciated; *African* and *French Marigolds*, showy and easily grown flowers; *Mignonette*, whose flowers are much appreciated in the greenhouse before they expand out of doors; *Nemesias*, charming annuals for pot culture and also for flowering out of doors; *Petunias*, well-known and showy flowers; *Phlox Drummondii*, which as pot plants in the greenhouse are very showy; *Rhodanthe Manglesii*, a pretty *Everlasting Flower*; *Schizanthuses*, to succeed those sown in the autumn; *Stocks*, whose delicious fragrance is admired by all; *Zea Mays variegata* (variegated Indian Corn), very showy in the summer; and *Zinnias*, a free-growing race of plants whose bright-coloured blossoms are remarkably showy. H. P.

ORNAMENTAL-LEAVED VINES.

IN my opinion the value of these for effective purposes in our pleasure grounds is much underestimated, and when their true value is better understood I predict for them a great future. Since the introduction from China of so many beautiful and distinct varieties, these create a wealth of lovely tropical foliage absolutely different from anything else, and during the autumn the majority present such a beautiful effect that their beauty must be seen to enable one to fully realise their worth.

There are many ways in which these can be used, either for clothing pergolas, walls or buildings, trained up on tripods, or used as shown in the accompanying illustration. From my point of view they are never seen to better advantage than when grown in this way, and being such rapid growers, it takes but a short time to furnish the poles and chains. Large poles are probably the best, as when these are charred and have received a good coat of tar they will last in

good condition for many years. Either two or three lines of stout chain should be used, with holes bored through the uprights, through which the chain should be threaded and looped in a graceful manner. The posts must be placed at regular intervals to suit one's taste, but not too closely together, or the effect will be marred.

The ground should be drained and made fairly rich, as the stronger and better the growth the finer will be the foliage, naturally. This being once accomplished, the labour incurred will be very trifling. Beyond training and tying the growths, during spells of dry weather copious supplies of liquid manure should be given, and the surface dressed with a good coating of half-rotted cow-manure. Thoroughly syringe the foliage in the late afternoon after a hot day. A reasonable amount of pruning should be carried out during the winter and the growths made thoroughly secure.

Large, stout Larch poles should be used for tripods, preparing them in the same way as previously advised, the three being securely fastened together at the top with stout wire. One plant should be placed to each pole, and when it becomes thoroughly established it will be very conspicuous standing out in the shrubberies.

For pergolas there is nothing more valuable than these Vines for quickly clothing them and for effect, whether viewed from a distance or when walking beneath them. For clothing spaces on large walls or buildings these are also invaluable, notwithstanding that more labour is necessary in relation to training them than in the other ways mentioned.

Varieties.—Here we cultivate a large number which probably include the best of them, but I will mention only those which I consider to be among the most worthy and distinct: *Vitis Coignetia*, *V. megalophylla*, *V. Thunbergii*, *V. vinifera purpurea* and *V. Brandt*, all large-leaved varieties; *V. heterophylla delavayana*, *V. armata* and *V. Prasezkii*, medium size; the smaller-leaved *V. flexuosa Wilsonii*; *V. Thompsonii* and *V. himalayana rubrifolia* (the latter a very striking new variety).

Elstree.

E. BECKETT.

MISTAKES TO AVOID WHEN PLANTING ROSES.

IN the planting of Rose trees, as in most other things, there is a right and a wrong way, and although the operation is apparently simple, it is quite possible for the novice to make many mistakes. It is important that this work should be carefully done, for much of the future success or failure of the plants depends upon it. I have therefore endeavoured to describe some of the mistakes most frequently made, in order that readers may avoid repeating them.

Many failures are accounted for by the fact that the roots of the bushes do not receive sufficient

attention prior to planting. Long roots should be shortened, and all bruised and broken parts entirely removed. If allowed to remain, the damaged portions will decay and the rot will spread to the hitherto healthy roots. It is necessary to use a sharp knife when pruning the roots, so that a clean end may be left.

It is also a mistake to allow the roots to come into contact with any crude manure. If manure is used at all, it should be well rotted and thoroughly mixed with the soil. Many novices, hearing on all sides that Roses are gross feeders, imagine that the new bushes will do all the better if a nice little dose of manure is placed about the roots. In truth, quite the reverse is generally the case, the strong manure causing the dormant roots to rot rather than encouraging the formation of new ones. The better practice is to use a small

surprised to find how loose the soil has become round the plants in such a short space of time. Large plants that offer resistance to the wind will soon become loose again, however firmly they are planted, unless they are secured to a stake. The alternative is to shorten the longer growths considerably, which practice will not in the least diminish the chances of future success.

Finally, the use of a mulch of long manure is often advised; but, personally, I think this practice is a mistake. In my experience, the only effect of such a mulch applied during the winter is to keep the surface of the soil cold and damp, in many cases making it positively sour. Such conditions cannot possibly improve the health of the Rose trees. It is far better to keep a good loose surface, through which the life-giving properties of sun and air may penetrate to the newly



AN EFFECTIVE GROUPING OF THE MOONLIGHT BROOM, *CYTISUS SCOPARIUS SULPHUREUS*.

quantity of soft fibrous loam, which should be shaken well in among the roots. This will do much to encourage speedy root action. Artificial manures should also be avoided when dealing with new bushes. Bone-flour may be used with safety, a handful being sprinkled around each plant just beneath the surface.

Another very frequent mistake committed is planting too deeply. I have often seen fine plants utterly ruined by being placed several inches too deeply in the soil. The bush should be so placed that the point of union between the stock and the scion comes as near the ground-level as possible. Then, again, the bushes are often planted much too loosely. Roses require to be planted firmly—the firmer the better, excepting when the soil is wet and sticky. In that case it is better to allow the soil to become more friable before finally treading up. In all cases it is advisable to go over all newly planted Roses a week or two after planting, and tread them up again. Growers will be

forming roots. Should a spell of very severe weather set in, protection may be provided for the more tender varieties by drawing the surrounding soil up to their bases. Some advise using ashes for this purpose, but only ashes that have been exposed to the air for some considerable time should be used.

W. A. E.

THE MOONLIGHT BROOM.

AMONG the hardy Brooms, as the *Cytisuses* are generally called, few are more beautiful than the variety of the common kind named *Cytisus scoparius sulphureus*. Except that it is dwarfer and rather more prostrate, in general appearance and habit this resembles the type, which may so often be seen clothing the sandy banks of railway cuttings, or forming hummocks of green and gold on the waste spots of commons or even the country roadsides. The colour of the flowers is, however, different, being, as its varietal name implies,

of pale sulphur yellow. It is an excellent hardy shrub for poor sandy soil, and is seen to the best advantage when planted in good-sized colonies, as seen in the illustration on page 67. It flowers about the end of May or early in June, but even at other seasons its slender green stems are attractive. In common with other Brooms it should be planted when quite small, as old plants resent disturbance. G. B. D.

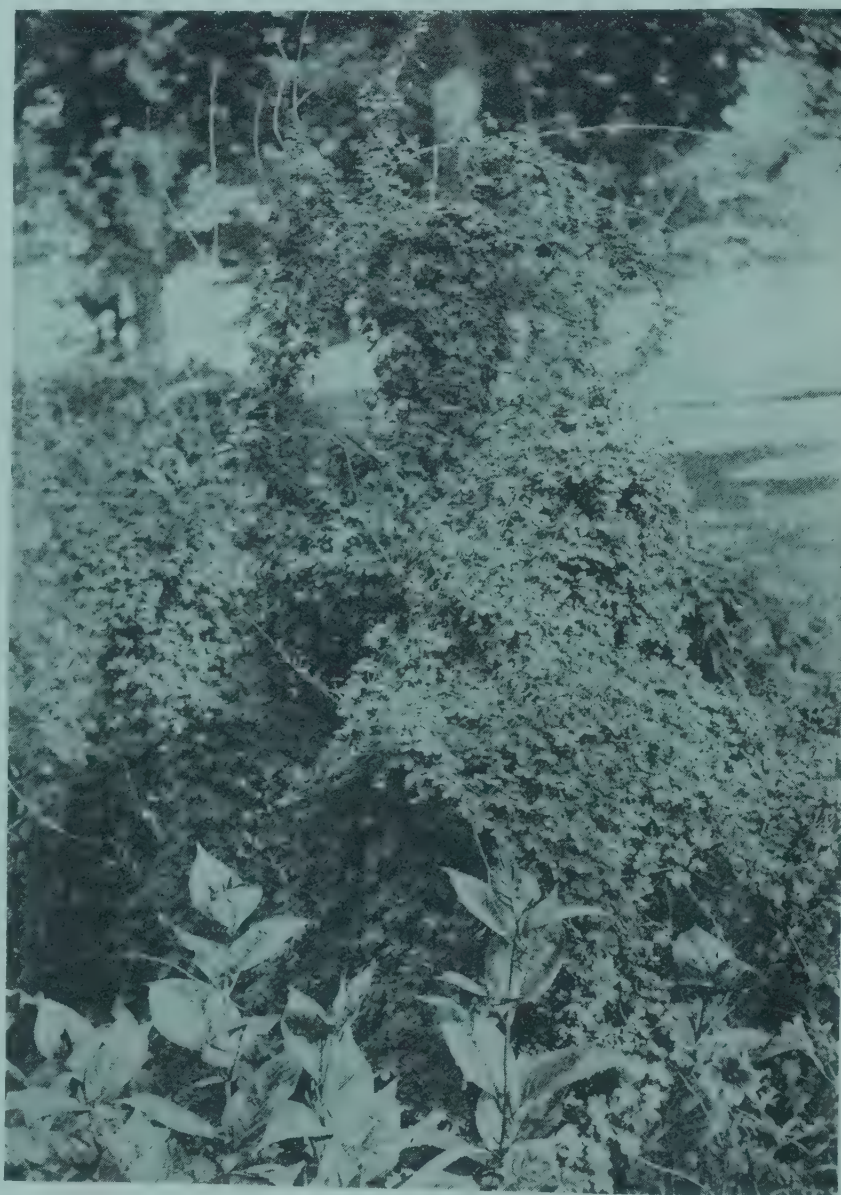
SHRUBS WITH FRAGRANT LEAVES.

SHRUBS that have fragrant leaves and are hardy in most parts of the country are comparatively rare; but if those kinds are included which are hardy in Cornwall and other places with a similar climate, a fair number may be enumerated. Fragrance is the only attribute of some of these shrubs, for the leaves possess little beauty and the flowers are not showy. In a few instances, however, the combination of fragrant and evergreen foliage exists, while in others the flowers are worth taking into consideration. Some of the more ornamental shrubs may be grown by themselves, others are better represented by groups, while some are seen at their best when planted as informal hedges. One of the first families to attract attention is *Artemisia*. Most of the shrubby kinds have fragrant leaves, and some, however, are weedy. Two of the best are *A. tridentata*, a native of the Western United States, which has silvery foliage, and *A. Abrotanum*, the common Old Man or Lad's Love. Both are shrubs to grow in our gardens, and the last mentioned is, of course, well known everywhere, but the former is rarely seen. They are useful for groups or informal hedges. The Cotton Lavender, *Santolina Chamæcyparissus*, is a yellow-flowered, silver-leaved, dwarf-growing plant of value for its coloured foliage, which is strongly scented when rubbed. A green-leaved *Santolina* may be had in *S. rosmarinifolia*. Both are natives of Southern Europe, and are excellent for massing in poor ground. *Laurus nobilis* (the common Bay) is an evergreen shrub which may be grown in all except the coldest parts of the country. Though in many places it is met with in the form of a good-sized bush, it attains much larger proportions in the mild climate of the South-West Counties; and in the vicinity of Port Talbot in South Wales specimens upwards of 40 feet high are to be found. Its fragrant leaves are often used for flavouring. The Lavender makes an excellent low hedge bordering a path. Its silvery leaves are less fragrant than its flowers, but they are sufficiently charged with oil to give

off a decided scent. The Rosemary must not be forgotten; it ought to be in every garden. *Lippia citriodora*, popularly called the Scented Verbena, is only suitable for the warmer parts of the country. In the island of Rothesay, however, it develops into a large bush in the open ground. Its leaves are very fragrant, the scent reminding one of lemon. D.

THE CULTIVATION OF TROPÆOLUM SPECIOSUM.

A LITTLE more than three years ago I was informed by a Cornish lady visiting me of the great beauty of the *Tropæolum* creeper, and I was desirous of seeing it established in my own



THE FLAME FLOWER (*TROPÆOLUM SPECIOSUM*) SCRAMBLING OVER A ROUGH SUPPORT.

garden. On making my wish known to my friend I received very little encouragement, for she maintained that it would only grow in Cornwall and in the Highlands. But I determined to try to grow it. I did not know which *Tropæolum* my friend referred to, nor did she know the name; but I guessed it would be either *T. speciosum* or *T. tuberosum*.

I bought a root of each—about March was the time, I think—and awaited developments. *T. tuberosum* came up and made great growth,

but never flowered, nor has it since flowered with me, though I have carefully wintered the tubers each year. *T. speciosum* never came up, and some months after planting I unearthed it, and found it quite dead and almost rotted away. It was a strong root, and I attribute my failure to planting it in a vertical position instead of horizontally, and also not deep enough. The same year I bought another plant, well established in a pot, with a growth several feet long. This, notwithstanding great care, languished and died.

My confidence in being able to grow the creeper was naturally shaken; but the following winter I bought a dozen small roots (like the first, advertised in your excellent paper).

You can imagine their size, for they were wrapped in moss and carried in an ordinary business envelope. With them were instructions for planting, which were to plant them horizontally and 9 inches below the surface. These instructions, vital as they are, are not sufficient. My idea was to plant each one in a different part of the garden. I had, thus, twelve different sites, and I hoped that one at least of the twelve would be a success. Six of the plants came up, and two or three made good growth, but none flowered. This was not to be expected, for they were very small roots. This was in 1913.

In 1914 two of the plants made very conspicuous growth, and one was a mass of bloom and quite the most striking feature in the garden. Now I come to the point of this letter. The roots of both of these plants are covered. One is in the backyard and planted against the wall underneath cobble stones, which were replaced. The other one was planted in a shrubbery near a root of common London Pride. The former did the best last year, but the latter has sent a side root underneath the Saxifrage, and whereas the original root was very feeble, there were some very vigorous shoots coming out through the Saxifrage, which makes me think that this plant will do well this year. I am even hoping that the creeper will get hold of the Rhododendrons, &c. in the shrubbery. It is most

evident to me that this creeper requires protection for its roots, and if I planted any more they would be placed 12 inches deep underneath a big clump of Prince's Feather, or under the tiles of the backyard, in a sunny part. Both of my plants are in sunny places. [The best plants of *Tropæolum speciosum* that we have seen were at Westwick, Norwich, where they have a north or north-west position.—ED.]

ROWLAND A. EARP, B.Sc.

Norton Cottage, Halton, Cheshire

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Early Muscat Grapes.—To force Muscat Grapes successfully, the roots ought to be confined to the inside of the house. The Vines which were started in November will now be in active growth, and if the border is well drained and not too deep, the roots will be in need of regular supplies of water. Liquid manure and some approved fertiliser must also be given at intervals. A night temperature of 65° must now be maintained, and sun-heat husbanded as much as possible by closing the house early in the afternoon. When in flower, much care is needed in keeping the temperatures equable. The bunches must be pollinated with a camel-hair brush, and if there are *Hamburgh* Vines flowering in another house, the pollen will be of great help in setting the Muscats.

Late Muscat Grapes.—The Vines must be got ready to start by the end of the month or the beginning of March. Both house and Vines must be thoroughly cleansed, and the border top-dressed with fresh materials before starting the Vines into growth.

Melons.—Lose no time in putting out the young plants on the hot-bed as soon as they are ready. Plant them on small mounds of soil, leaving room for top-dressings of loam as the roots develop. Sow more seeds for a successional crop.

Plants Under Glass.

Amaryllis.—A batch of bulbs may be got ready for flowering in April. After thoroughly soaking the soil, a portion of it may be removed to make room for a top-dressing of fresh materials. In some cases the bulbs will need repotting. Water must be carefully afforded till growth is active.

Gloxinias.—Batches of these may be started into growth as required. Place the tubers in shallow boxes filled with leaf-soil, and put them in a warm, moist house for a week or two prior to potting them into their flowering pots.

Salvia azurea grandiflora.—Cuttings of this beautiful *Salvia* will root readily in cold frames. Insert five or six cuttings in a 5-inch pot in a light, sandy compost. Keep the frame close and shade the cuttings from bright sun till they have rooted. Some of the most promising of the old plants may be shaken out and repotted.

Salvia splendens.—If cuttings are available, a batch may now be inserted in 4-inch pots and placed in the propagating-case. When rooted, pot them singly into 3-inch pots and keep them growing in a moderately warm house. They must be well syringed, or red spider will attack the foliage.

Humea elegans.—The plants which were raised from seed last year should now be ready for moving into their flowering pots. Pot firmly in a compost of fibrous loam, leaf-soil, lime rubble and coarse sand. Do not attempt to hasten growth by forcing, or failure will result.

The Flower Garden.

Montbretias.—The corms which were dug up in the autumn must now be planted in their flowering quarters, as growth is on the move. If the ground is too wet, a little dry soil from the potting-shed will facilitate the work. Plant only the best bulbs in the flower borders; the smaller ones may be put out in the reserve garden.

Cannas.—The plants which have been wintering in a frost-proof shed may now be brought out and potted. The stools must be shaken out and divided, potting only the most promising portions.

Dahlias.—If propagation by cuttings is desired, the roots must be placed in boxes and covered with soil. Stand the boxes in a warm, moist house to induce the plants to grow. Insert the cuttings singly in small pots filled with a light, sandy compost. After watering them in, plunge the pots in a hot-bed in the propagating-case, keeping the cuttings shaded from bright sun. The single varieties may be increased by seed, which may be sown now.

Climbers on Walls and Pergolas.—Growth on many climbing plants is now on the move, and

any pruning and training not yet done must be no longer delayed. The young growths of some of the Clematises must be kept tied, or they will be damaged by rough wind.

The Hardy Fruit Garden.

Raspberries.—Old plantations may now have their final thinning of the canes. Where the canes are secured to wires, they may be thinned to about six inches apart. Lightly fork the ground between the plants and apply a good dressing of well-rotted farmyard manure. Autumn-fruiting Raspberries must be cut down to the ground-level. If it is intended to make new plantations, the ground must be thoroughly prepared by trenching and manuring. Plant in rows 5 feet apart and 4 feet between the plants. Cover the rooting area with short litter. Before growth commences cut down the canes to within 8 inches of the ground.

The Kitchen Garden.

Spinach.—Where this vegetable is in great demand, small sowings may be made in cold frames. A mild hot-bed will considerably enhance the progress of the plants. Towards the end of the month a sowing may be made on a sheltered border outdoors.

Turnips.—A sowing of an early kind must be made as soon as the ground is in suitable condition, and further sowings may be made at intervals.

Brussels Sprouts.—A small sowing of this vegetable may now be made for early supplies. Sow in boxes and place them in moderate warmth till the seedlings are through the soil. When large enough, prick out the young plants on a bed in a cold frame.

Autumn-Sown Onions.—The mild winter has been favourable to the growth of these. Have a piece of ground ready on which to transplant them as soon as the weather will allow.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

Fruit Under Glass.

Early Melons.—The earliest batch should now be ready for planting in their fruiting quarters. Do not be in a hurry to plant until the soil has become thoroughly warmed. It is the usual custom to grow Melons on small mounds or hillocks, but excellent results are to be obtained if, when shifting them from the 4-inch pots, they are moved into 6-inch pots which have had the bottoms knocked out and replaced by large pieces of turf. Then, when planting, simply plunge the pots to the rims in the bed as they are. This prevents the plants receiving any check in removal to their permanent quarters.

Early Vines.—Disbudding should receive attention. In houses where the Vines have been bent over and tied down to regulate the flow of sap, let the canes be secured to the wires, exercising caution that the young shoots are not broken, as they are very brittle at this stage. Do not hurry to tie down the young growths unless they are actually touching the glass, as the growths withstand handling much better when they commence showing their bunches. Continue to maintain a fairly humid atmosphere until the flowering starts. Drier conditions should prevail when this stage is reached; a slight damping of the pathways and border, however, will do no harm if the weather is very bright.

The Kitchen Garden.

Capsicums.—Where required, seed may be sown in heat. The plants are easily grown, if kept free from insect pests. Grow in a moist atmosphere, and, after the pods have formed, drier and cooler conditions will suit them.

Brussels Sprouts.—The earliest lot should now be sown thinly in boxes in a temperate house. As soon as the seed leaves have developed, give cooler conditions, so as to induce a sturdy growth. Later they may be pricked out into frames, and gradually hardened off ready for planting out by the last week of April.

Peas.—The first opportunity should now be taken to make an early sowing. If the ground remains cold and wet, take out a small trench to a depth of 6 inches and fill in with some dry soil; potting-shed refuse will generally do for this. As a prevention against the ravages of rats and mice, treat the seeds with a dressing of red lead or paraffin before sowing.

Plants Under Glass.

Dracaenas.—Plants which have become at all leggy should now be topped, before they start into active growth. A few notches should be made on the part of the stem immediately below the leaves, and moss tied round. The remainder of the stems, after the tops have rooted and been potted, may be cut into a number of eyes, if the increase of any variety is desired.

Tuberose.—Place a batch of bulbs in heat where there is plenty of moisture in the atmosphere. Watering is not necessary until signs of growth are evident. The syringe, however, should be used freely, and as the plants are so subject to green fly, the occasional use of an insecticide will be necessary.

Hydrangea hortensis.—Plants may be had in flower by the middle of May if started into growth now. Any in need of potting should be attended to, using some artificial manure in the compost. The colour of the flowers generally desired is blue, and in some localities they are blue naturally. There are preparations on the market for turning the flowers of *Hydrangeas* blue, but as they contain a large proportion of iron, it is wise to use them with extreme caution.

Saintpaulia ionantha.—This bright little plant is a most useful subject for keeping the edges of plant stoves gay, as it is almost perpetually in flower. A packet of seed usually produces a variety of hues. The best of these may be propagated from leaves, which soon take root and form plants.

The Flower Garden.

Lawns.—Take the opportunity during a dry spell to deal with Daisies. The largest patches should be removed carefully with the aid of a fork, and the remaining small ones have an application of Daisy-killer, which should not be used any more sparingly than directed by the makers, or the results will not be satisfactory. The lawn, after being treated, will assume a rather brown and burnt appearance; this will gradually disappear as the coming warmer weather encourages the thick growth of young grass resulting from the use of the lawn sand.

Climbing Roses.—Any plants not yet tied up should be dealt with, before the buds become too prominent. A judicious thinning of the growths not only results in finer flowers, but there is less danger of well-thinned growths producing premature buds, which are liable to be injured by late spring frosts.

Pansies.—When required for general summer bedding, Pansies are sown during August and September. It is, possible, however, to have a good display during autumn if seed is sown now in boxes indoors. After germination has taken place, harden off the seedlings before pricking them out in a cold frame.

The Rock Garden.—This most interesting branch of gardening has become very popular during recent years. Most gardens nowadays include a rock garden; indeed, in some establishments it has become the main feature. Where a rockery is to be formed, the situation will have much to do in deciding the form it is to take. Sometimes a rock garden can be made more attractive by the inclusion of water gardening in the scheme, keeping in view that it must have full exposure to the sun. A charming effect is obtained by the reflection of flowering plants in the water. Then, too, Water Lilies will flower long after the bulk of the alpine have passed out of bloom, and so retain interest in this garden. Where the site of a rock garden is level, the addition of a few large subjects, such as Bamboos, Japanese Maples, Pyrus and Broom, will do much to relieve the monotony; they should, however, be planted with discretion.

JOHN JEFFERY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockersbie, N.B.

APPLES AND PEARS: THEIR FLAVOUR AND PEDIGREE.

NOTES FROM AMERICA.

THE pertinent ideas of Mr. Chapman on the flavour and pedigree of Apples, as set forth in his comprehensive article on page 595 of *THE GARDEN* for December 12, 1914, are of peculiar interest to growers of the present day, when so much is sacrificed to appearance and productiveness. Verily it is an age of commercialism in which we live, in the garden and orchard as well as in most other branches of industrial life. But I see no reason for losing our senses in this absurd chase for pecuniary gain. If certain Apples are not worth growing because of their inferior flavour or lack of flavour, let us drop them and substitute better ones. If these are less productive, as some of them often are under ordinary treatment, then let us give them extraordinary treatment and care, as, I am happy to say, is now being done in many parts of this country to-day, with very excellent results.

We cannot produce a superior article of any kind anywhere without some extra care and intelligent labour. Why should we expect to subvert or avoid natural laws in the orchard any more successfully than we can in the shop or factory? Does it cost more to raise good fruit? Yes. And do the people want only cheap Apples, and are they content with anything that looks large, red and handsome? Perhaps so, if they do not know any better. The masses are largely untaught as to the quality of an Apple, and they buy on sight, or they order "some Apples" to be sent home. The dealer dumps them out of a barrel or basket, and off they go, tough, woody and insipid they often are, though large, smooth and red, perhaps like the Ben Davis, Baldwin and other marketable sorts of that ilk that grow easily in abundance with scant care and culture.

Are Growers to Blame?—But are the growers free from blame for this condition of affairs? If more fruit of the better quality were found in the general market, even at a slight increase in price, the people would enjoy it more, be led to enquire as to the variety, and return for a new and greater supply. These are facts which must be conceded by all intelligent growers, dealers and consumers. Hence it is that Mr. Chapman insists upon flavour as the motive to work for in the orchard. He pleads for the brain and palate. And so have I for many years. And the Editor of *THE GARDEN* seems to think our point is well taken. Mr. Chapman speaks of our American Mother Apple, which has long been regarded with much favour for its fine quality everywhere. And yet we do not find it in the market. He says its origin is uncertain, but Thomas described it sixty-seven years ago as originating in Bolton, Worcester County, Mass. Just how it was produced or why so named is, however, unknown. It is a beautiful red Apple of medium size, with tender, rich, aromatic flesh that pleases the most discriminating palate. It is therefore attractive as well as excellent. But growers find the tree a slow grower and not very productive, and they advise top-working upon more vigorous stock. Hence it is listed as desirable for the home orchard, but not recommended for general "commercial planting." Afraid to risk it, you see.

"Chance Seedlings."—That many of our best fruits come to us haphazard, no one knows how, is perhaps true, though I would not embrace all in that assertion, as there are some with distinct pedigrees, scientifically produced. And yet Nature has often beaten our most skilful hybridisers. We call them "chance seedlings," but Nature takes no chances; she works with a definite purpose and design, whether we understand it or not. For years I have been trying very hard to trace the precise origin and pedigree of our famous Esopus Spitzenburgh Apple, that *sine qua non* of Apple flavour, that prince of the realm, which is only rivalled by our Newtown Pippin that captured the palates of English Royalty long years ago. Our Government Pomologist begged me to clear up this pedigree if possible. That it first appeared here in this Esopus region, where I live, some two hundred years ago is now conceded. But just how it came into existence, and at what particular point, will never be known. That it was the product of Nature, unaided by man, seems very clear. Fruit culture at that period was wholly unknown here, and it is not strange, therefore, that no record of this important advent in the realm of Pomona is found.

The Origin of Jonathan Apple.—Then, too, look at the history of the Jonathan Apple—another charming red package of princely flavour, often regarded as a "seedling" of the Spitzenburgh, though erroneously, as I believe, in spite of its similar characteristics. Of this Apple we have very definite and authentic record as to the place of its origin, but nothing of the method of its production. The original tree stood upon a farm in Ulster County, New York, among the foothills of the Catskill Mountains, some ten miles from my home. And this tree was still living in 1845, having been in bearing some twenty-five or thirty years. But nobody ever knew how it came to produce such a superior Apple. It grew among some low shrubbery along the fence on this farm of Philip Rick, and therefore must have been a product of Nature in some mysterious way. The beautiful dark red colour of the fruit drew attention to it, of course, and saved the tree from destruction with the wild brush around it. This, together with its rich flavour, soon won a place for it in the nursery where it was afterwards propagated extensively, for a time. It bore different names at first, including that of Philip Rick, who, it would seem, was entitled to the honour perpetually. But it was finally named Jonathan, after a prominent gentleman of local celebrity who is credited with bringing the variety into public notice. It has been known as an Esopus seedling, but I have been unable to find any evidence of this aside from some similarity in type, nor is there any record of that Apple growing in the vicinity at that time. Thus we are left in a sea of conjecture and speculation concerning this most valuable "foundling."

The Seckle Pear is another product of unknown ancestry with no apparent father or mother, as Mr. Chapman aptly suggests. Must we then ascribe to Nature and natural processes, unaided by man, the credit of producing our choicest fruits? Our famous hybridising wizard of California would answer "No," most emphatically, pointing to his many wonderful creations in the garden and field, of which much might be said. And yet all he has ever done, or expects to do, is to assist Nature, which he frankly admits. In these times, when we work more intelligently upon definite lines, our records of methods will,

of course, be more complete and satisfactory. And yet this whole matter of improved varieties, from the pollen and seed, through all the various stages of elimination and selection, is a very slow and precarious process, requiring great care and patience. And the reward is often very disappointing. In addition to the necessary botanical skill, there must be a true love for the work.

It is a well-known fact that Nature never creates any duplicates, and for this reason alone the plant breeder finds his opportunity. He has therefore the widest possible range of variation, depending solely upon his skill and knowledge. In the *régime* of Nature the changes and variation of plant-life are very slow, though continuous and certain. Here it is that man may step in, hasten matters and get quicker results. He can also open up a great vista of change and variation by crossing the sexual elements of the blossoms; and thus prevent inbreeding. Nature does this by the help of insects, but this, of course, is apparently indiscriminate, and without special design or purpose. But the intelligent plant breeder seeks to combine certain qualities of excellence and value. To this Nature assents, and says, "Go ahead; I'll help you," and she does, as long as her laws are not transgressed. It has been said that fruits automatically adapt themselves to the tastes and desires of the people for whom they grow, and there is some evidence to prove this. The universal adaptations of Nature to existing conditions are indisputable. But while there are certain fixed principles in plant breeding, there is no such thing as an exact science, any more than there is in the reproduction of the human species. We can blend certain characteristics by crossing, but certain others may slip in during the process that we never dreamed of or did not want. So we can never rely upon any precise result. We can coax Dame Nature, but she will not be driven.

Kingston, New York.

H. HENDRICKS.

SEASONABLE NOTES ON CHRYSANTHEMUMS.

Varieties for the Outdoor Border.—The Chrysanthemum survives if left out during the whole year. The old stems die, certainly, but suckers grow from the roots every winter. Sometimes severe frosts injure the young suckers, and in clayey soils in low-lying districts a few may be killed, but usually in such cases late suckers appear in the spring. Although border varieties may be grown without the aid of glass, it is an advantage to propagate cuttings in a frame during February and March. Old roots will do good service if left in the border year after year, but it is not the best way to grow Chrysanthemums, even for the furnishing of open borders. The roots should be lifted, divided and replanted, or cuttings propagated from them annually; then the best results follow. In these days only a few of the old varieties should be retained, as those of recent introduction are so much finer. They are better in habit of growth, in the quality of the blooms and in colours. The majority of the plants are dwarf, and so we are able to have a fine display of blossom on plants that do not require much staking. Furthermore, the display may be had from August to November. The following varieties will afford satisfaction to every amateur cultivator.

Varieties Flowering in August.—Lena, terra-cotta, 2 feet high; Fée Parisienne, deep mauve, long flower petals, 2½ feet; Caledonia, pure white, 2 feet; Mme. C. Perrier, creamy white, suffused pink, 2½ feet; Tapis de Neige, pure white, very free, leave undisbudded, 2 feet; Normandie, delicate pink, 2½ feet; and Mrs. A. Willis, yellow, shaded red.

September-Flowering Varieties.—Touraine, porcelain, very beautiful, with incurving petals, 2 feet; Whitepoint, reddish lilac, points of petals tipped with white, 2½ feet; Vésuve, chestnut crimson, 2 feet; Tonkin, reddish orange, 2 feet; Tapis d'Or, golden yellow, fine for narrow borders, only 1½ feet; Savoie, pure white, 2½ feet; Rosie, terra-cotta, 2 feet; Queen of the Earlies, a very large white, 3½ feet, suitable for masses at the back of a broad border; Pont de Jour, rosy white, large blooms on dwarf plants, 1½ feet; Polly, deep orange, 2 feet; Patricia, mauve pink, a lovely variety, 2 feet; Orange, orange and terra-cotta, 2½ feet; Norbert Purvis, golden salmon, 1½ feet; Nellie Hemsley, a good pink, 2 feet; Mrs. A. Thomson, a rich golden yellow, 2½ feet; Miss Birchfell, blush pink, gold centre, 2½ feet; Minnie Carpenter, terra-cotta, 2½ feet; Mme. A. Nonin, a very fine pink, 3 feet; Mabel Roberts, a deep pink, flowers freely on long, stiff stems forming beautiful sprays; Le Pactole, bronzy yellow, 3 feet; La Somme, deep mauve pink; La Rhin, reddish terra-cotta, very effective and good for cutting, 2½ feet; Jimmie, crimson purple, 2 feet; James Bateman, pure pink, large, 2 feet; Hermine, pure white, 2½ feet; Goacher's Crimson, rich crimson, 2½ feet; Gertie, salmon pink, shaded gold, flowers freely over many weeks, dwarf, 1½ feet; Eden, bright rose, a good variety for disbudding, 2½ feet; Cactus, rich terra-cotta, 2½ feet; and Champ d'Or, canary yellow, 2 feet.

October-Flowering Varieties.—Champagne, ruby red, 2½ feet; Crépuscule, purple red, 3½ feet; Diane, pure white, 3 feet; Gustav Grünerwald, light pink, 1½ feet; Btoile d'Or, yellow, 2 feet; Primevère, primrose, bushy habit, 2 feet; Pride of Keston, reddish rose, 2½ feet; Mrs. E. V. Freeman, deep crimson, 2 feet; Mme. Marie Massé, lilac mauve, 2 feet; Lorraine, crimson and purple, 3 feet; Lentz, deep pink, 2 feet; and White Quintus, 3 feet.

The cuttings may be propagated in small pots or dibbled in in a sandy compost in boxes. At this season, if they are kept in a frame rather close and very lightly syringed, also lightly shaded from bright sunshine, roots will soon form without placing squares of glass on the cuttings themselves. When rooted, the young plants must be transplanted once further apart into other boxes; then they will be ready for planting in the borders early in May.

AVON.

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

Offices: 20, Tavistock Street, Covent Garden, W.C.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

GERANIUM LEAVES FOR INSPECTION (E. R.).—The Geranium leaves have been attacked by some biting insect, probably a caterpillar of the surface grub type, which hides in the soil (and is much the same colour as the soil) during the day, coming out at night to feed. Search would doubtless reveal the pest, though as its colour is so similar to its surroundings, it is by no means easy to see. Spraying with some poisonous spray, such as lead arsenate, will also check the pest, and probably spraying once in six or eight weeks would be sufficient.

HERBACEOUS BORDER (W. A.).—We should like to know a great deal more about the border. Obviously, you have one in mind; hence we cannot generalise to your satisfaction. What we would like particularly to know is the time the border has been planted, the nature or character of the soil, and how the work was done. If you give us these particulars, we can promise you a helpful answer. We are compelled to put it in this way, because the differences of soil—light and heavy—are so great that no rule of thumb principle could be laid down. The border may even want replanting, and as we know nothing of its age or subsequent treatment, any reply could only be in the nature of guesswork. As the "Answers to Correspondents" columns are intended to be of service to our readers, all we ask of the latter is to give us a clear statement of affairs in the briefest possible way, when no pains on our part will be spared to give a helpful reply.

TOP-DRESSING PRIMULAS (W. A.).—None of the Primulas named in your letter requires mulching with stone chips through the winter. Two of them, P. rosea and P. japonica, are moisture-loving, semi-bog-loving species, and given this condition in leaf-soil and loam fairly rich in humus, they reach their highest development. It is not always necessary or even desirable that the plants be submerged, or even partially so, though it is essential that moisture be within reach. With this provided, the root-fibres will do the rest. P. farinosa is a pasture plant, and is often found in Nature mingling with the dwarfest herbage, where cool conditions and often moisture are found. We give you these details to prevent your treating every rock garden plant alike, and a detail which is alien to the plant in Nature is not requisite in the garden. Nowadays because a plant happens to be of the alpine class it is surrounded by granite or other chips, and while such things may stay evaporation in the summer-time, in certain instances they are not in the least desirable plus not ornamental or even natural to a plant like P. rosea, which in Nature inhabits semi-boggy ground at an altitude of 10,000 feet or even more.

LILY POND AND BORDER (E. A.).—Unless you have definite experience as to the water-holding capabilities of the soil intended for the pond's area, you will be well advised to take greater precautions than you propose. With moisture and a fair amount of tempering, a 3-inch-thick layer at the bottom might be made secure enough, but the sides would require similar treatment and on systematic lines. We advise you to make sure of this at the start, as an aquatic pond that is not water-holding is a continual nuisance subsequently. As to the border, your plan does not show any, and your letter gives no idea of size, and without some knowledge of this and the environment of the pond any list of plants we may give you might be wholly unsuitable. Please, therefore, say whether plants suited to a water-side border are required, or whether the border is removed some distance from the pond. Please also say if the border is exposed or in a shaded position. The Water Lilies need not be planted before the middle of March, and for each plant a mound of earth, loam incorporated with manure and leaf-soil, should be prepared.

THE GREENHOUSE.

ADVICE ON ORCHIDS (E. A.).—As the whole of the members of the several genera named by you do not need the same treatment, our advice can only be taken in a general rather than an individual sense. Cattleyas, as a rule, require a winter temperature of 55° to 60°, while, as spring advances, the house will, of course, be kept warmer. In very hot weather in the summer the

temperature during the daytime may rise to 90° without any harm, providing there is a liberal amount of atmospheric moisture. Potting should be done when the new roots are about half an inch long. This is mostly in the spring, but varies according to the species. A suitable compost for Cattleyas consists of two-thirds Osmunda fibre or good fibrous peat, the remaining third being made up of chopped sphagnum moss, small nodules of charcoal and silver sand. The pots must be thoroughly well drained. When growing freely, Cattleyas need to be shaded from the sun, but when growth is completed they may only be shaded during the very hottest part of the day. When fairly ripened, less water will be needed, but at no time must they be parched up. Lælias require much the same treatment as the Cattleyas. Dendrobiums as a class need different treatment, but such as D. nobile, D. thyrsiflorum, D. wardianum and several others bloom in the spring. After flowering, they will need about the same temperature as the Cattleyas, and as soon as the young shoots spring from the base they may be repotted. Directly the roots take possession of the new soil the plants will delight in a warm and moist structure. When growth is completed, the plants must be inured to a cooler and drier atmosphere in order to ripen them, while they may be gradually exposed to full sunshine. In the winter a temperature of 55° to 60° by night, rising during the day, will be suitable. At that time they do not need much moisture at the roots, only enough, in fact, to keep them from shrivelling. Directly the flower-buds make their appearance, more water and heat should be given them. Much the same compost as recommended for Cattleyas and Lælias will suit the Dendrobiums. Odontoglossums belong to what are usually termed cool-house Orchids. During the winter a temperature of 45° to 60° will suit them, and in the height of the summer the difficulty is to keep them cool enough. They should at that time be well shaded, freely watered and plenty of atmospheric moisture maintained. This is kept up by lightly spraying the plants overhead, and by damping the stages, walls, &c. A suitable soil for Odontoglossums may be formed of two-thirds Osmunda fibre or fibrous peat and one-third of sphagnum moss (chopped), with a sprinkling of clean silver sand. Odontoglossums resent being disturbed at the roots in the summer, hence repotting should be done in the spring or early autumn. They must be kept watered at all seasons, but, of course, less will be required in the winter than in the summer. Oncidiums need much the same compost, with the addition of a little fine charcoal. Repotting should, as a rule, be done soon after the flowers are over. Many of them will thrive under much the same conditions as the Odontoglossums, while some need more heat.

MISCELLANEOUS.

STERILISING SOIL (F. P.).—Any method by which you can raise the temperature of the soil to about 180° or over will serve to sterilise it so far as to kill eelworms and most of the other pests of greenhouse plants. It may be baked in an oven or heated by placing red-hot iron plates or bricks on the soil heap, but the best means of doing it is to drive steam into it. An apparatus fashioned like a fish-kettle, with a perforated false bottom on which the soil to be treated rests over water that can be heated to boiling point, the steam being retained by a cover fitting close, would probably serve your purpose as well as anything if only a small quantity of soil is to be dealt with.

SOCIETIES.

BIRMINGHAM AND DISTRICT GARDENERS' ASSOCIATION.

THE scriptural reference to "the highest and lowest seats in the room" was the Rev. Hilderic Friend's jocular opening remark at Birmingham on January 25, for, curiously enough, so close to him were the only two vacant seats that the comparison was most appropriate. "Garden Worms: Are They Friends or Foes?" constituted this first paper to the association, and, apart from its excellent scientific treatment, it practically covered a hitherto unexploited subject with many who were present. Until within quite recent years people, whenever they discovered, picked up or examined earthworms, invariably spoke of them all as Lumbricus terrestris, it being only of late that the discovery of the variation in species has been made. Darwin, perhaps one of the first to interest himself in worms, had assumed eight to ten kinds to be existing; but the matter only stood at that when the speaker himself commenced his own investigations, and his addition to the former list so far made the recognised species now to be forty-two in all. It is, however, certain that at least five times this number actually exist. The purple blue coloured worm in some gardens, the ruddy bright; and, say, steel blue in another, all denote variety of species. By inspection of the girdle, an interesting part of the worm's egg case—not, as is fallaciously supposed, the part where it has at some time or other been cut—the pores on the segments will disclose, as in the case of Lumbricus rubellus, the genus to which it belongs. Generally speaking, worms may be defined in the three groups Lumbricidae, Enchytraidae and Tubificidae, and no fewer than forty varieties are included in the Lumbricidae, those which without exception are in truth useful in the garden in breaking down decadent vegetation, sweetening the soil or attacking fermented manure. The Enchytraide, or smaller white worm, is guilty of ravages to

which grave charges may be made. During the past few years many new names have been added to them, and one instance of dire havoc being wrought on an Aster-bed was mentioned. In fact, all in this class are very dangerous unless their depredations are effectually checked. The Tubificidae are inhabitants of the water. They possess a tube and are bright red in colour. Although our acquaintance with worms is only yet in its infancy, science has already pronounced them as possessing a brain, an elaborate, highly sensitive and complex organic structure, and hermaphrodite in nature. Hearty applause was accorded for the lecture at the conclusion, and a vote of thanks also was proposed by Mr. W. Jones and seconded by Mr. A. R. Brown.

WARGRAVE AND DISTRICT GARDENERS' ASSOCIATION.

THE annual meeting of the above association was held in the Parish Room, Wargrave, on Wednesday evening, January 13, under the chairmanship of the president, H. F. Nicholl, Esq., J.P. The Rev. S. M. Winter (Vicar of Wargrave), a vice-president, was also present, in addition to a good number of members. The election of officers for the ensuing twelve months resulted in Mr. R. Doe, gardener to Sir Charles Henry, Bart., M.P., being chosen as chairman; Mr. P. Wiseman, of Messrs. Waterer, Sons and Crisp, as vice-chairman; and the following as committee: Messrs. Batchelor, Gray, Haskett, Irvin, Richardson, Scott and Stephens. Mr. H. Coleby was re-elected hon. secretary and treasurer. The annual report and balance-sheet were considered extremely satisfactory, notwithstanding the critical period through which the country has been passing. Twenty-one of the younger members have joined His Majesty's Forces, but others have taken their places in the ranks of the society, so that there has been only a net decrease of two during the year. Several other matters of interest were dealt with before the meeting closed with votes of thanks.

HIGHCLIFFE GARDENERS' ASSOCIATION.

At the annual meeting of the members of this society, all the officers were re-elected for the year 1915. Cordial votes of thanks were passed to the president, E. Huntly Hooper, Esq., J.P.; the hon. secretary, Mr. A. Stephens; the assistant-secretary, Mr. W. Weaver; and the librarian, Mr. F. Cook, for the good work done by them during the past year. The society intends to hold two exhibitions this year, one at midsummer and one in the autumn. A substantial sum was raised, through the holding of the autumn show, for the benefit of the Prince of Wales' National Relief Fund, and now the members propose to include classes for cottagers in their 1915 prize schedules, so as

to encourage a wider interest in gardening in the district. The programme for the half-year ending June 6 is a very interesting one, and deals with important subjects. The staff teacher, Mr. Glead of the Hampshire County Council, is to give two lectures, and Mr. Montagu C. Allwood, Wivelsfield Nurseries, Hayward's Heath, a lantern lecture on "The Culture of Carnations (Indoors and Out)." Mr. W. Weaver was the winner of the President's silver medal in the Points Class during the year 1914.

DUMFRIES AND GALLOWAY GARDENERS' ASSOCIATION.

THIS association held its ordinary meeting in the Wesley Hall, Buccleuch Street, Dumfries, on January 23. There was a good attendance, with Mr. S. Arnott in the chair. After the usual formal business the chairman introduced the lecturer for the evening, Mr. John B. Crichton, The Gardens, Kinmount, Annan, who gave a capital paper on "Gardeners' Peculiarities." The scope of the paper included many comments on different classes of horticulturists, such as apprentices, journeymen, foremen, head-gardeners, nurserymen and nurserymen's travellers. It was written in a delightfully humorous vein and full of quips and anecdotes, with the result that it held the close attention of the audience during its duration, and was followed by hearty applause. It was not devoid of sound advice, and much of this, conveyed in a witty way, was well worthy of reflection from those present. A short but appreciative discussion, taken part in by several members, followed, and Mr. Crichton received a hearty vote of thanks.

CHELMSFORD AND DISTRICT GARDENERS' ASSOCIATION.

THE seventh meeting of the association was held in the East Anglian Institute of Agriculture on Friday, the 22nd ult. Mr. R. H. Currie presided over about thirty members. Mr. R. M. Wilson, Principal of the institute, gave a most interesting and instructive lecture on "Soil Moisture." The lecturer dealt with his subject in a scientific manner, and showed how the soil was made up of numbers of minute grains, and how, under ordinary conditions, these grains were surrounded by a film of water. It was pointed out that the greater proportion of the rainfall fell during the winter months, and therefore crops, as a rule, never obtained the maximum amount of water that they required during the growing period. Cultural operations, such as ploughing, rolling, mulching and surface cultivating, were fully explained, and it was shown how these various operations tended to the conservation of soil moisture. Mr. Wilson illustrated his remarks by various experiments. At the conclusion of the discussion

a hearty vote of thanks was accorded Mr. Wilson for his most interesting lecture. Mr. Currie was also accorded a vote of thanks for kindly taking the chair.

OBITUARY.

WILLIAM TAYLOR.

WE learn with regret of the death of Mr. William Taylor, stationmaster at Dalmellington, and an ardent amateur horticulturist, which took place on January 26. Mr. Taylor, who was sixty years of age, was for twenty-five years in the service of the Glasgow and South Western Railway Company, and went from Ayr to Dalmellington about nine years ago. His love of horticulture soon found scope at that place, and he transformed the grounds into a beautiful garden, which received the highest awards at the annual competition. Mr. Taylor was much esteemed in private life as well as in his official work. He is survived by Mrs. Taylor and a young family.

JAMES CHAPMAN.

STIRLINGSHIRE has lost one of its oldest and most respected market gardeners by the recent death of Mr. James Chapman, Candie, near Grange-mouth. Mr. Chapman was in his ninety-fourth year, and had carried on business as a market gardener for the lengthened period of sixty-six years. He was a skilled horticulturist, and his produce was of the highest quality. Mr. Chapman was much esteemed in his private and public capacities, and his knowledge of his calling and the integrity of his character frequently led to his appointment as a judge at flower shows over a wide area.

ECONOMY IN THE GARDEN

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THE GARDEN.

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FEBRUARY 13, 1915.

NOTES OF THE WEEK.

Treatment of Ferns in Pots.—The usual condition of some species of Ferns in pots at this season of the year, owing to the removal of fronds, is not very flourishing, therefore water should be applied with judgment for a few weeks, only giving them sufficient to prevent the drooping of the existing fronds. Ferns rested in this way throw up more young fronds and grow with greater vigour than when the opposite course is adopted. As soon as plants of *Adiantum cuneatum* are cut over, place them in a temperature of 50°, and keep them there till new growth commences; they should then be potted on, or divided if they are getting larger than is required.

A Noble Oak.

Quercus Mirbeckii is one of the most distinct and ornamental of the many kinds of Oak, and it is a species to remember when a choice is being made of large-growing trees for park or garden decoration. A native of North Africa and certain parts of South-West Europe, particularly Portugal, it sometimes exceeds 100 feet in height, with a large trunk, and is conspicuous by reason of its large leaves, which are in some seasons almost evergreen and rarely fall before January. The leaves are often 5 inches to 7 inches long and 2 inches to 3½ inches wide, with regular and rather deeply lobed margins. It gives good results when planted under the same conditions as the common Oak, requiring deep and really good soil to ensure the best development.

A Beautiful Camellia.—The illustration on this page represents flowers of *Camellia reticulata*, one of the most beautiful members of the family, and one that deserves to be better known. As will be seen, the flowers are not of that stiff, formal outline that is usually associated with Camellias, and therein lies their principal charm. The blossoms are a pleasing shade of bright soft rose, and open in a cool greenhouse during the early months of the year. This species is a native of China,

whence it was introduced to this country nearly a century ago. If planted out in a border, it will make a large bush 8 feet or more in height, but it is also suitable for growing as a smaller plant in pots.

Presentation to Mr. George Bunyard.—Owing to failing health, Mr. George Bunyard, V.M.H., felt it necessary a few weeks ago to resign the chairmanship of the Royal Horticultural Society's fruit and vegetable committee, of which he has been a member for thirty-four years and chairman for fourteen years. His fellow-members of that committee have presented him with an illuminated address, together with a diamond

is *Calluna vulgaris cuprea*, though one usually finds it labelled in gardens as *Erica vulgaris cuprea*. A good breadth of it planted on a gently sloping bank would create quite a bright, warm effect during the winter months, and it is also beautiful in late summer when its purple flowers open. Like other varieties of Ling, it appreciates well-drained and rather sandy soil that contains a good amount of humus.

The Glory of the Snow.—This is the popular name given to a beautiful little blue flower that opens during the early days of spring, when vegetation generally is awakening from its winter slumber. Botanically the plant is known as *Chionodoxa Luciliae*. There is an even more pleasing variety known as *sardensis*. This is deep blue in colour, with cinnamon red flower-stems. The blossoms open just a little later than those of *Luciliae*. It is a very charming flower for planting in small colonies in the rock garden or for the more prominent places among shrubs. Seeds are produced in abundance, and if allowed to ripen and fall, germinate very freely.

Rhododendron nobleanum Flowering Well.—The mild weather of the present winter has been favourable to the development of the flowers of this bright-coloured *Rhododendron*, and



A FLOWERING SPRAY OF *CAMELLIA RETICULATA*, A NATIVE OF CHINA WITH ROSE-COLOURED BLOSSOMS.

and sapphire gold pin, as a token of the high esteem in which he was held by them all. The address and pin were displayed at the meeting of the committee held on Tuesday of last week, and were presented to Mr. Bunyard by a deputation on the following Thursday. Mr. C. G. A. Nix has been appointed the new chairman of the fruit and vegetable committee.

The Copper-leaved Ling or Heather.—In the Heath garden just now the Copper-leaved Ling is an attractive and interesting plant, by reason of its rich red-bronze foliage and tips of the shoots. It is a medium tall variety, though on poor soil it remains dwarf for years. Its full botanical name

several bushes have been noted in good condition between Christmas and the present date at Kew and in other gardens. It is a very old garden plant, for it is said to have been raised as long ago as 1832 in the Knap Hill Nursery by crossing *R. arboreum* and *R. caucasicum*, and it has held its own among other kinds throughout the time, being still popular in many places. In Cornish gardens it makes a distinct winter feature, while it is also grown extensively in some parts of the North of England, its rosy red flowers expanding any time between November and March. It is, without exception, the most valuable hybrid *Rhododendron* for early forcing.

HOME-GROWN VEGETABLES AND OUR FOOD SUPPLY.

The article that appeared under this heading in our last issue has created a considerable amount of interest, and we publish below a selection of letters that we have received on the subject. In addition to the letters that have been sent for publication, we have received a number from some of the highest Government officials, Members of Parliament, and other public men. Invariably the writers of these letters cordially endorse our remarks, but, holding the position they do, they not unnaturally mark their communications "private."

I AM much pleased to see your excellent and timely article in *THE GARDEN* for February 6, pointing out the national importance of everyone doing their utmost to increase our supplies of home-grown vegetables. At this juncture to do so is not only a patriotic action, but one which, having regard to the inevitable tendency of all foodstuffs to rise in price, should be pecuniarily profitable. I sincerely trust that the various horticultural societies will aid your propaganda; they certainly should. Without waiting for your advice, I have already arranged to utilise all available land possible at Aldenham for this purpose.

Aldenham House, Elstree. VICARY GIBBS.

In reference to the editorial article which appeared on page 63 of last week's issue, everyone doubtless will agree that we cannot very well have too many Potatoes and other vegetables at the present time. I would strongly advise all cottagers to grow all they can of kinds that are likely to be most useful for food, since bacon, cheese, bread, butter and Potatoes, which together may be taken to be their main food in normal times, will be dearer. The question of growing more for hospital consumption or for sending to the Fleet or for kindred purposes is different, and it seems to me that if local societies are to take up this work, co-ordination and co-operation are very necessary in order that the distribution may be arranged to the best advantage. JOSEPH JACOB.

I was delighted to read the article on "Home-grown Vegetables and Our Food Supply" in your issue of last week, and very much hope that you will enlist wide and prominent support for your excellent suggestions. With regard to the good work which could be done by the various horticultural societies throughout the country, I am entirely with you, and I have already approached the secretary of our local horticultural society, asking him to place the article before his committee. I feel that it is impossible to treat the question of our vegetable supply for the coming year too seriously. Surely there can be no doubt that, owing to the constantly increasing prices of meat and bread, the demand for vegetables will be an ever-increasing one, and I unhesitatingly state that it is both patriotic and business-like for every one of us to do all we can to increase the growth of vegetables in every possible way. May I make what I hope you will think is a practical suggestion? Could you not send out to the secretary of every horticultural society in the country a copy of your article and ask him to place this matter on the agenda paper for his next meeting? [This, as far as possible, shall be done.—ED.] J. ALLAN RAMSAY.

THE appeal you have made for co-operation among horticulturists to grow vegetables for the hospitals is a most timely one. We have, unfortunately, before us a great and pressing need.

We cannot hide from ourselves that in such a gigantic struggle the number of wounded will be very great. An ample supply of vegetables fresh from the ground of English gardens may prove the saving of many lives and the alleviation of much suffering. Although each garden may only be able to contribute a little, many of these littles will mean much when all is told. Your idea of combination by local societies to collect and send in the produce as it is ready will certainly make the work easier and less costly all round. If local societies would accept your suggestion and collect orders from their members for the produce to be grown upon your plan, I am sure that not only our own association, but all seedsmen of standing would gladly co-operate in quoting wholesale prices. The difference between wholesale prices and the much higher figures required for small lots does not represent, as is sometimes supposed, an increased profit to the supplier. The difference is lost in expenses of labour, packages and railway carriage. You suggest that technical hints might be distributed among the members of the horticultural societies, who would undertake to grow surplus vegetables. We have, as you are well aware, published many penny garden books containing information for the use of small holders, allotment holders and owners of small gardens. One of these by the veteran horticulturist, Mr. John Wright, V.M.H., on "Cropping Allotments," would, I think, be very useful to the growers, and we should be happy to make grants, through yourself, of copies to be distributed, to a reasonable amount.

EDWARD OWEN GREENING.
92, Long Acre, London, W.C.

I AM quite in accord with the very practical article in *THE GARDEN* of February 6. I reply to it, strongly supporting the same, and will use similar headings in doing so, as in the article in question.

Co-operation Needed.—We had during the past autumn some practical experience of the beneficent effects of the use of surplus vegetables. For several weeks we sent such from these gardens to the London hospitals and homes of refuge. I can testify to the appreciation of the recipients of these. It is not so much a question of those in large establishments. These can, and will, help, I have no doubt, and to the best of their ability; but those with smaller gardens can help too. It is in this that co-operation will be found to work well. With this I cordially agree in the suggestions made.

Horticultural Societies Should Help.—At such a time as the present all horticultural societies should rise to the occasion and do all that lies in their power to assist in their immediate locality by inducing a spirit of emulation among its own members and others within their reach. True, the prize schedule in many societies is this year being abandoned. I do not think personally that this should arise. It shows a tone of

despondency. Why not rise to the occasion and endeavour to encourage the extended culture of such vegetables (and flowers too) as will prove to be of use in the way indicated? In the case of such societies as make a point of good vegetable exhibits, prizes might be offered for the best crops on the ground that are suitable for the calls of the moment. Others that make a feature of flowers can also help by sending them to the hospitals, care being taken to avoid overlapping.

How Assistance Can be Rendered.—Local committees might do a great deal towards encouraging this new departure in cultivation. The advice of experts should be sought as to the best methods of procedure. What strikes me is this: A point should be made of getting the utmost off the ground at such a time. By this I mean make a feature of first-early vegetables to a great extent, e.g., early Peas, early Carrots, early Turnips and the like; early Lettuce also, brought on under cloches if needs be; early Marrows by the same means. By adopting these methods much of the ground can be double cropped. Do not adhere too much to the rule of thumb practice, but rather try to make every available yard of ground yield something that will in due course prove to be useful. Parsley is ever welcome; so are such herbs as Thyme, Mint, Marjoram, Savory, &c. I know that salads are welcomed; hence, in addition to the Lettuce I have named, there are Radishes, Cress of various kinds, and later on Tomatoes from early raised plants. The Turnip-rooted Beet is very useful indeed for early use for salads. I found Cucumbers, too, were most acceptable last autumn.

The Supply of Seeds.—This would apply more particularly to societies which ordered seeds and then distributed them among their members. The hint I have given as to early varieties could be taken into consideration in giving these orders. It is not in any sense essential to launch out in the purchase of expensive varieties, while new varieties should be given the go-by at such times. The seedsmen of repute—and their name is legion—would, I feel, be only too glad to give advice as to the best varieties to purchase, while I have no doubt a liberal discount might be anticipated on payment of the account being made.

The Collection of Surplus Vegetables.—This is a matter where horticultural societies should help. By having a small committee, it is quite possible to do a deal in this way. Small quantities could be collected and then packed in one hamper. (In doing this enclose a "returned empty" label. I find this pays in all cases.)

Surplus Plants for Cropping.—I know that numbers were distributed last autumn by the Royal Horticultural Society's influence. This can be done again this season by societies all over the country if taken up in time. There will be many surplus plants available during the season. Rather than let these spoil, by all means use them.

JAMES HUDSON, V.M.H.
Gunnersbury House Gardens.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Outdoor Flowers in Midwinter.—Regarding your note on outdoor flowers in midwinter, page 37, issue January 23, you might have added the Winter Heliotrope (*Petasites fragrans*). It has been flowering freely this winter.—W. LILICO.

Cuttings with "Heels."—Is it not the case that the reason for taking cuttings with "heels" is that it prevents bleeding? My father, who was a successful Geranium-grower, always laid his cuttings out in the sun until the cut ends had dried, and he showed me that cuttings put in the ground with a bleeding end were very apt to rot off. My experience is that it is generally best with all plants which are juicy and soft to let the cuttings wither a little before placing them in the ground. I wonder if Mr. Portman Dalton, who writes under this heading in your issue of January 30, has tried this.—THACKERAY TURNER.

Solanum ciliatum.—I was interested in seeing your illustration of *Solanum ciliatum* on page 56, issue January 30, having often wondered why I had never met the plant in England. Twenty-five years ago I saw bushes of it in Mr. Hanbury's beautiful gardens at La Mortola, beyond Mentone, and brought back one of the fruits, from which I raised a number of seedlings. We moved house, however, or something, and they never arrived at more than the seedling stage, and I cannot remember their ultimate fate. They are so easily started, however, that they would probably do well planted out against a south wall, like Tomatoes, especially in a summer like that of last year.—A. LA T.

Funkia subcordata alba odorata.—I am much obliged to "E. M." for his note on page 27, in the issue of January 16, in response to my enquiry under the above heading. I am also much obliged to Mr. James Adison, The Gardens, Castle Mary, Cloyne, County Cork, who wrote me, giving the result of his experience with the white *Funkia*, which experience goes to show that while it usually flowers well when grown in a deep, moist soil, it is not quite satisfactory in some seasons. Although I obtained the plant, named as above, from a leading London firm, I am now convinced that it has been a misnomer, and that our plant is really *Funkia subcordata grandiflora*, as suggested by "E. M." In Nicholson's "Dictionary of Gardening" it is given as a distinct species under the name of *F. grandiflora*, but when referred to in the Supplement it is said to be "a form of subcordata." Other *Funkias* succeed well in our moist soil, so I must try my hitherto disappointing plant in a new environment, and may some day record the result in these pages.—CHARLES COMFORT.

A Hedge of Sorts.—I see in your issue of January 9 an enquiry in your "Correspondence" by "Anne Amateur" re "A Hedge of Sorts." I suggest here a few "sorts" which I should be pleased if you would publish or convey for "Anne Amateur's" perusal. A good Crab is *Pyrus Maulei*, dwarf, and allied to *P. japonica*; flowers brick red, fruit used for preserving. Others really better in flowers but not so in fruit are *P. thianschanica*, *P. baccata* and *P. cerasifera* (Cherry Crab). A good Maple is *Acer rubrum*, scarlet or crimson flowers and red keys, the extremities of the branches deeply tinged with red in early spring; very ornamental. Other sorts are *A. campestre*, *A. palmatum* (*A. polymorphum*), *A. pinnatifidum*, *A. crispum*, *A. roseo-marginatum*

and *A. purpureum*. I also think *Berberis* ought not to be left out. Two good ones are *B. Darwinii*, yellow flowers in early spring and again in the autumn, and *B. empetrifolia*, yellow flowers, December to March.—H. S. P., Wroxham.

Daffodils for the Garden.—Mr. G. L. Wilson's letter under this heading in your issue of January 30 tempts me to offer a few more remarks on the variety King Alfred, which he recommends everybody to try very hard to grow. I meant to have added a sentence in my former letter when speaking of this variety, advising those who must have it for exhibition purposes to make sure that they get their stock from those who had grown it in the South-Western Counties of England, the Welsh seacoast, or from the bulb-growing districts in Ireland, which are practically the only places in the British Isles where it will thrive and bloom well year after year. Mr. Wilson I see lives in County Antrim, and even he has had some poor experience of it, and in a sense his county address goes to prove my point. I must repeat, however,

properties of the variety, but, until it can be bought at a price very much under 21s. a dozen, I advise all those who are outside the sphere of its particular favours to confine themselves to well-known good doers.—A SMALL AMATEUR.

Iris stylosa.—I have been waiting each week to see if any of your correspondents would write to you remarking on the phenomenal blooming of *Iris stylosa* this winter, but, as none has done so, I think perhaps it may be of interest to give you the results of my experience. Since before Christmas I have been picking an average of forty to fifty blooms every two days off about a dozen plants. Some days I have gathered as many as a hundred blossoms. The clumps are scattered about in every variety of aspect and soil, and all have done equally well, including the beautiful white variety of the type. Some are planted in wet, sour ground facing south (these were given mortar rubble when planted some years ago), one clump is in a shady but dry corner facing east, some are on the poor soil at the base of a rocky



FLOWERS AND FOLIAGE OF IRIS STYLOSA, A CHARMING WINTER-FLOWERING SPECIES.

that King Alfred has been tried both in Middlesex and Surrey for the last ten years and more, and has been found almost impossible to keep in good condition. When I first got a bulb of it from an old florist friend of mine who lived in Surrey, he informed me that it had done very badly with him. With me the precious bulb was, of course, a poor thing in growth the first year, and as it was at that time listed at £4 4s. or £5 5s., I must have been struggling to get it to do better for seven or eight years at least. I have tried to grow it in a considerable depth of maiden loam, and in such even under standard fruit trees, but all to no purpose. During recent years I got twelve bulbs from Cornwall, and these did fairly well the first year of blooming, but the disease had got them by the second year. I have come to the conclusion, therefore, that the trouble is more a matter of climate than of soil; hence I adhere to the remarks I made about it in my former letter in your issue of January 23. I agree with Mr. Wilson as to the fine exhibition

cliff, where they are growing practically in powdered freestone, some are in garden beds. Those in the latter run more to leaf, though the flowers are also abundant. Those on poor soil have poor foliage, but masses of flowers. Mr. Rickatson Dykes, in his excellent little book on Irises, classes *I. stylosa* among those difficult to flower, and no doubt this is the case in some soils. My experience is that after a hot summer like the last the flowers are abundant, whatever the weather may prove during the blossoming period. I had much the same results after the hot summer of 1911, when I also sent you a few notes on the subject. During these cold, wet weeks the exquisite blooms of this lovely *Iris* have helped much to cheer one in the otherwise depressing state of the garden, and I feel sure many more people would grow *I. stylosa* if they realised its unique beauty as a hardy winter-flowering plant. I may also mention that I have already had a few blooms from the usually much later-flowering variety *speciosa*.—S. PRENDERGAST, Windcliffe, Nilton-Undercliff, Isle of Wight.

SOME HARDY LILIES.—VII.

BY SIR HERBERT MAXWELL, BART.

SUB-GENUS CARDIOCRINUM.

Lilium giganteum, the Giant Lily, is well named, for it is the noblest in stature and amplest in foliage of all the genus, besides producing flowers of great beauty and fragrance. It is perfectly hardy in all parts of the British Isles; I have known it come unharmed through a temperature below zero Fahrenheit without the slightest protection, which is the more remarkable because it grows with the apex of its huge bulb flush with the soil-level. Of the many hundreds I have raised from seed, I have never known one to suffer injury from disease or parasite; even rabbits avoid the glistening foliage. Why, then, have so many amateurs met with disappointment in trying to establish it? The reason is not far to seek; it is found in the deplorable condition in which the bulbs are offered for sale, with the long, fleshy roots withered or rubbed off. When they arrive in that state, the large flowering bulbs are scarcely likely to recover, though the smaller ones may be nursed back into vigour in a cold frame. Once a bulb has produced its ample foliage, there is no difficulty about propagating it to any extent, for in time it will send up its huge flowering shaft, to be followed by a profusion of seeds, whence an ample stock may be raised. I speak, however, only from experience of the seed of Himalayan plants; the Giant Lily is also a native of China, and I am informed that the seed of plants from that country is not fertile. The seeds should be sown in boxes with loam, sand and leaf-mould or peat; most of them will lie till the second season before germinating, when a dense crop will spring up. The seedlings should be pricked out as soon as they can be handled, preferably in a cold frame, lest frost forces them out of the ground; but after a season under glass they may be set in the open, care being taken all along not to let them suffer from excessive sunshine. Mr. Weatherby, in his excellent "Practical Guide," states that the bulbs will flower in from four to six years from seed. That is a sanguine estimate; I have found that it takes seven or eight years from sowing to produce a flowering bulb. Luckily, there is a far more speedy method of propagation. After flowering, the huge bulb, sometimes weighing more than two pounds, dies, but not before throwing out a numerous progeny of smaller bulbs. Some of these will be found large enough to produce flowering stems in two years, which they will do if left beside their dead parent, the smaller ones waiting to start till their elder brothers have flowered and died in their turn. To increase the stock, it is only necessary to raise the clump in October, and to plant out the young bulbs separately. A plant of such robust habit as the Giant Lily exacts, and deserves, generous treatment.

Before planting the bulb, a hole at least 1 foot deep should be dug in loamy soil, in a position well drained, but the reverse of dry. Into the hole enough loam, mixed with peat or leaf-mould, should be put as will allow the bulb to rest with its pointed top just under the surface when the hole is filled in; for it is a peculiarity of this Lily that, although it sends out strong roots around the base of the flowering stem, as well as those from the base of the bulb, it does not agree with deep planting, such as ordinary stem-rooting species require. After growth begins and the plant is well established, one can hardly treat it too

a green column, which, as it lengthens throughout May and June, throws out fresh leaves in a regular spiral, lessening in size towards the top. Finally, having attained a height of 8 feet to 10 feet, the long green flower-buds appear, erect at first; then slanting to the horizontal, whitening, and at last opening one by one to any number between a dozen and a score on a single stem. The flowers are creamy white, broadly streaked with purplish maroon within, and diffuse a delicious fragrance. It is essential for the production of such a noble structure that it be sheltered from strong winds. The stem, often 9 inches in circumference at the

base, is stalwart enough to disdain staking; but the flowers, though of great substance, may be shattered in a summer storm. Moreover, wind exposure prevents the stems from rising to their full height, and stature is the crowning glory of the Giant Lily. When the flowers fall, the seed-vessels begin to swell, and continue to do so till each reaches the dimensions of a hen's egg. Standing like green candelabra, the stems remain very decorative till the end of November. Then comes the propagator's opportunity. He may not only save a bountiful harvest of seed, but secure a great number of young bulbs. The old flowering bulb will have disappeared by this time, its substance having been expended in throwing up the flowering stem. Seize that stem and pull it up; it will yield readily, and bring away among its roots half-a-dozen or so of small bulbs, leaving in the soil a number of others, which should be allowed to remain there, after receiving a liberal mulch, to flower in their turn in the following or some subsequent summer. Let the bulbs once be established in rich, deep soil, and the Giant Lily will prove as easy to manage as any Larkspur or Rudbeckia; but if it is desired to have it at its best, it must be generously treated. There is little danger of giving it too much nourishment. My own garden is situated near a large lake which swarms with pike, upon which we make occasional raids with a net in the interest of wild ducklings—favourite tit-bits in pike circles. Fish manure is very stimulating. There is nothing the Giant Lily appreciates more keenly than an eight or ten pound jack laid to rot under its big radical leaves.

Three or four years ago I offered to supply (gratuitously, of course) a

well-known firm in the North with a quantity of seed of the Giant Lily (*L. giganteum*), gathered from plants which I had myself raised from seed. The offer was declined; albeit in a catalogue for 1913 now before me, bulbs of this Lily are priced from 2s. 6d. to 15s. each, and generally arrive from abroad in a hopeless condition, owing to the long, fleshy roots having withered. Had my offer been accepted by this firm, they might by this time have had a valuable stock of hundreds of healthy bulbs to put on the market, instead of the debilitated imported stuff which is the cause of so much disappointment.



A BEAUTIFUL GROUPING OF LILIUM GIGANTEUM IN THE ROYAL HORTICULTURAL SOCIETY'S GARDENS AT WISLEY.

generously. A heavy mulch of cow-manure is not a pretty object during the winter months, but it is soon screened out of sight when the splendid, cordate, radical leaves, of a glistening grass green, develop in spring. These are very ornamental in themselves. They are proof against all but extraordinary frost in spring, and I have never known rabbits, slugs or any other unhallowed creature to molest them.

Next follows the excitement of detecting which of these royal masses of foliage is to send up a flowering stem. The centre of a clump thickens, rises and develops into

UNDESIRABLE PLANTS FOR THE ROCK GARDEN.

THIS text has been suggested by a correspondent, who writes: "Would it not be worth while for you to write an article on plants which gardeners should avoid?" and the obvious affirmative reply is contained in the accompanying remarks. Doubtless there are garden "undesirables" as there are also those of the other class, and, the twain being of a parasitic nature, merit drastic measures if they are to be driven from our midst. Doubtless, too, with a desire from time to time to give readers the best a garden may contain—one eminent writer declared years ago that the "best of everything was quite good enough for him"—the "undesirables" have been too long overlooked or ignored, notwithstanding that their pest-like character or weediness should long ago have entitled them to a place in a never-to-be-completed *index expurgatorius*. I say "never to be completed" advisedly, inasmuch as one's experience in such matters continues to grow, quite independently of the way in which certain plants are influenced by local conditions. Bearing this latter in mind, actual experience will always be the best guide, and must ever take precedence of orthodox. Testimony to this end may be found in the way certain garden weeds infest one locality while entirely absent in another, the same principle having its parallel among cultivated plants. Hence, as I have written elsewhere, "the weed of one soil is not necessarily so of all," though such things as *Calystegia* and *Convolvulus althæoides* are usually particularly troublesome on all chalk soils, and should be guarded against accordingly.

In the rock garden an "undesirable" becomes all the more so by reason of the shelter the rocks afford, and roots or stems penetrating every crack or cranny are in an impregnable fortress of their own, from which it is almost impossible to drive them or even starve them out. Against all such, of course, the gardener should be warned. The more pernicious weed pests of the garden, Coltsfoot (*Tussilago*), Couch Grass, Bindweed and the terrible Goutweed (*Ægopodium*), every gardener will guard against, though there is danger at times, consequent upon the use of roadside sweepings—though less frequently employed to-day than formerly—of some of them getting into the garden through the medium of seeds or roots. Should such ensue, drastic measures must be resorted to at once, since the first loss will undoubtedly be the least. Delay in such a case is dangerous. It is vexatious, too, while feeble efforts to oust the pest are continuous and, in the end, costly; hence none should hesitate about moving rock or plant, or both, in order to beard the lion in its den. It is in these circumstances, therefore, that I warn readers against the following plants, some of which, while having no

right in the rock garden at all, get there in some inexplicable way, to the worry and discomfiture of the gardener: *Achillea Millefolium*, in any form; *Asperula odorata*; *Calystegias*, all, particularly in chalk soils; *Campanula Rapunculus*; *Cerastium tomentosum* and *C. Biebersteinii*, the last the worst of the two; *Convolvulus althæoides*, especially on chalk soils; *Convallaria varia*; *Crucianella stylosa*, occasionally, though easily kept within bounds; *Euphorbia Cyparissias*; *Galiums*, all; *Hieracium aurantiacum*; *Muscari*, often because of the numerous bulb progeny; *Oxalis corniculata* and perhaps other species; *Sedum spurium*, the most aggressive, perhaps, of the whole race, rooting into every crevice and, particularly in cool places, overwhelming all; with *Vancouveria hexandra* and *Vincas* generally. These are among the worst known to me. Doubtless there are others. If so, those readers of THE GARDEN who know of "the enemy in our

SWEET PEAS FOR GARDEN DECORATION.

FOR its fragrance, its free-flowering nature, and hardy constitution that enables it to grow in the town garden almost as well as in that situated in the country, the Sweet Pea is without exception the most popular as well as the most useful annual of to-day. For garden decoration it is quite indispensable, as, no matter where it may be planted, it can never be unsightly, while for cutting it is seldom that one has too many, as the demand is unceasing for this glorious flower, and the longer the season is prolonged, the more are the flowers appreciated. In order, as far as possible, to obtain a long season of flowering, it is usual to make three sowings—the first towards the end of September, the second early in



FOTHERGILLA MAJOR, A BEAUTIFUL AND INTERESTING HARDY SPRING-FLOWERING SHRUB.

midst" should not fail to communicate with the Editor without delay.

E. H. J.

A LITTLE-KNOWN HARDY SHRUB (FOTHERGILLA MAJOR).

WHEN better known, this free-flowering shrub is destined to hold a prominent place in the gardens of this country. Singularly enough, it was known in this country over a century ago, and was figured, in 1811, in the *Botanical Magazine*. At that time, however, comparatively little interest was displayed in rare shrubs, and *Fothergilla major* was soon lost to cultivation. For its reintroduction we are indebted to Professor Sargeant, who sent it to Kew about twelve years ago. So far as soil is concerned, this plant does well in a sandy loam to which peat and leaf-mould have been freely added.

C. Q.

February, and the last about the middle of March.

Spring Sowing.—As the former is now out of the question, the beginner must contrive to get the best results from the last two dates. The earliest sowing is made in pots, the question of size being an open one. For the purpose in hand a convenient size is 5 inches. The pots should be perfectly clean and well drained. A suitable compost consists of four parts good loam to one part each of leaf-mould and dried stable manure. The ingredients should be passed through a fine sieve, and a dash of sharp sand or old lime rubble added to keep the whole porous. Avoid sowing too thickly; seven seeds in each pot are ample.

Treatment of Seedlings.—If a warm greenhouse is available, germination will take place rapidly; but as soon as the seedlings are noticeable, remove to a cold frame and endeavour to

promote a healthy growth by keeping them as cool as possible, so that they will experience no check when planted out in April. This method should give flowers early in June. Plants from the sowing made in the open in March will commence to flower about a month later and continue to do so as long as the weather remains open.

Soil Preparation.—Wherever the Sweet Peas are intended to flower, the soil should be thoroughly prepared for them in advance. In the majority of cases this, no doubt, has already been done; but where, so far this has not been possible, it is essential to the welfare of the plants that it be no longer delayed. To get the best return from a row it is necessary to trench the whole length of it for a width of not less than two yards, and during the process work in a liberal quantity of well-rotted manure, leaf-mould, wood-ashes and bone-meal. Should there be any turf available, the best place for it, along with the manure, is at the bottom of the trench, the other ingredients being put among the top soil. Excellent results may also be obtained by digging out a good wide trench the length of the row and filling it with rich soil; but it will be understood that unless it be made wide, the roots cannot experience the same freedom as in the above method. This applies with no less force to clumps that are to be planted in the shrubberies and borders, as everything depends on giving the roots a wide area to run in. If this is taking place throughout the season, there is never a shortage of superior flowers.

For the Outdoor Sowing it is perhaps advisable to choose the first opportunity when the soil is workable after March is in. The surface should be lightly forked up and left for a couple of hours to dry. Raking and drawing out a drill some two inches deep is then much easier. Avoid sowing too thickly, and choose the finest of the soil to cover the seeds.

Planting Out.—Early in April in average seasons is a suitable time to plant out those growing in pots. In this case, during the forking up of the soil, the opportunity should be taken to work in a sprinkling of superphosphate. In planting, avoid injury to the roots as much as possible, and if the soil is very dry, give a good watering with clear water. If the weather is at all genial, the plants will soon begin to make headway, and no time should be lost in giving them the necessary support.

Supports.—Where the time-honoured Pea-sticks are not to be had, the problem of what is best to use is no light one, as for garden decoration the exhibitor's method is no way out of the difficulty. Wire-netting of large mesh is used by many, with the desired results, for both rows and clumps. For the latter it is arranged in a rough circle by fastening it to five stout stakes. When it is used for rows, it is secured to tall stakes fixed some twelve feet apart. Among the advertised supports, the Simplicitas Netting is good, being easily fixed and very durable.

Varieties.—For the beginner anxious to grow the latest and best varieties, the following are worthy of note. Among them will be noted many exhibitors' favourites; but seeing there is no proof that such are unsuitable for garden purposes, there is no reason why one should not avail himself of the newer varieties and be up to date: Hercules, Thomas Stevenson, King White, Robert Sydenham, Agricola, King Manoel, Barbara, Melba, Mrs.



FLOWERING SHOOTS OF ACACIA DEALBATA, NOW BEING SOLD IN THE MARKET AS MIMOSA.

Cuthbertson, Mrs. C. W. Breadmore and May Campbell are all leading sorts; and Maud Holmes, Nubian, R. F. Felton, Elsie Herbert, Rosabelle, Etta Dyke, Clara Curtis, Nettie Jenkins, Countess Spencer and Edrom Beauty are all recognised as being among the best all-round varieties.

F. J. TOWNEND.
The Gardens, Brentwood, Moorgate, Rotherham.

AUSTRALIAN MIMOSAS (ACACIAS).

THE various Australian species of Acacia constitute an important group of greenhouse plants in most parts of the country, while in a few favoured counties they are hardy. In Devonshire, Cornwall and other

places with similar climatic conditions they develop to a great height, trees 40 feet high with trunks a foot in diameter being found in many gardens. Australia is particularly rich in species, and upwards of one hundred have been introduced at one period or another. Some of these possess little beauty until they have assumed the proportions of trees, while others are charming in a small state and bloom profusely when only a few inches high. They were possibly more popular as greenhouse plants a quarter of a century ago than they are to-day; but a considerable quantity are still cultivated, while in France one or two species are grown largely for cutting, branches being cut and forced into flower for the Paris and London markets, where they are sold under the name of Mimosa. The common name of Wattle is also applied to the Australian Acacias, the different species being distinguished by one or another prefix.

Where they will thrive out of doors they may be planted in groves or as isolated specimens. The taller-growing kinds, such as *A. dealbata* and *A. decussata*, quickly assume tree-like proportions, and are very beautiful in early spring when covered with their fluffy, yellow flowers. Several flowers compose a small round head, and a large number of these go to make up a good-sized panicle. Some of the smaller kinds grow into large bushes and are effective as evergreens in addition to their beauty as flowering shrubs. No more delightful sight can be wished for than a large tree of *A. armata* covered with dark green foliage and balls of golden blooms, while little difficulty is experienced in their cultivation once a plant becomes established. In these warmer counties it is possible to grow the majority of the introduced kinds outdoors, and in some gardens there are good collections.

Although it is the general practice to cultivate Acacias indoors as small pot plants, it is not in this way that the most satisfactory results are obtained. Anyone who possesses a large, cool conservatory, corridor or cold greenhouse may, by planting Acacias in open borders or in large tubs, attain a degree of success that can never be hoped for under more restricted cultural conditions. A high temperature is not essential to success; in fact, more satisfactory results are

achieved by growing the plants quite cool; and in frosty weather, except during the flowering season, the temperature in the structure where they are housed may well be allowed to drop to freezing point before fire-heat is applied. When in a cool house with a good circulation of air, the plants are vigorous and the foliage is rich in colour, while there is less chance of thrips and

nealy bug attacking them. When grown in heat, these two pests are sometimes frequent, and seriously affect the health of the plants, for cleanliness is an essential. Specimens that are planted in large tubs or open borders should be placed in moderately sandy soil which is thoroughly well drained, for, though Acacias like a fair quantity of water during the growing season, they are impatient of stagnant moisture, and anything approaching sour soil is often fatal. With plenty of root room and a cool temperature, water is only occasionally required during the winter months, and the man entrusted with their culture should be careful to give water only when the soil is becoming dry.

The culture of large specimens, once the potting, watering and ventilation are mastered, gives little embarrassment, for pruning consists of a good cutting back as soon as the flowers are over, and cultivation for the next few weeks means keeping the structure rather closer than usual and the plants frequently syringed until new growths are formed. About mid-summer those in pots and tubs may be placed out of doors and left there until the end of September.

Rehousing demands a little attention, for, if abundant ventilation is not given night and day for a while and a light syringing over morning and evening for a few weeks, the plants are likely to suffer. The most satisfactory compost for these plants consists of two parts of good fibrous peat, broken up rough, one part of good fibrous loam and about half a part of coarse sand, while potting should be firm. Cuttings of many of the kinds may be rooted during spring and summer. The young plants for the first year may with advantage be grown in a moist intermediate temperature. They should be kept well stopped, to ensure a bushy habit, by laying a good foundation. Flowering must not be encouraged the first year, the great object being to obtain strong examples for succeeding years. Of some sorts very good plants with five or six strong shoots 12 inches to 18 inches long, covered with flowers throughout the greater part of their length, may be obtained in two years from cuttings, the plants being in pots from 5 inches to 6 inches in diameter. A similar soil to that recommended for large plants is desirable, but it must be broken up somewhat finer. Over-potting is a great mistake in growing the Acacias, and it is far better to feed the plants than to use large pots. Weak liquid manure may be given with advantage from the middle of summer until the end of the growing season, after which time an occasional application only is required through the winter.

Good Kinds for Pot Culture are *A. acinacea*, a species with small leaves and fine wiry shoots; *A. armata* and its variety *angustifolia*; *A. cultriformis*, conspicuous by reason of its rich glaucous phyllodes and deep yellow flowers; *A. Drummondii*, with its flowers in short spikes; *A. hastulata*, *A. juniperina*, *A. linifolia*, *A. longifolia* var. *floribunda*, *A. myrtifolia*, *A. obliqua*, *A. platyptera* and *A. verniciflua*. If pillars have to be covered, no better kinds can be found than *A. leprosa*

and *A. riceana*. The main branches should be supported and the remainder allowed to hang loose. If a large structure is available, stronger-growing sorts, such as *A. dealbata*, *A. baileyana* and *A. verticillata*, may be tried with success, but they can only be grown with advantage where abundance of room can be given. The flowering period is spring, but with a little management a succession of bloom may be had from Christmas until the end of May. W. D.

SOME BEAUTIFUL WINTER-FLOWERING SHRUBS.

THE WYCH HAZELS.

ALTHOUGH there are a number of plants which flower naturally in the outdoor garden at mid-

This is known as *H. mollis*, and the accompanying illustration indicates its bushy, spreading habit, and at the same time shows the wealth of brilliant golden-hued blossoms with which the shoots are wreathed. These flowers are composed of long, narrow and very curiously crimped and twisted petals. When first grown it was considered necessary to provide this beautiful shrub with a mixture of light loam and peat, but I believe that the Hon. Vicary Gibbs has cultivated it with considerable success in the stiff clay soil that naturally prevails at Aldenham House, where, several years ago, there was a fine bush some five feet high. So far as our necessarily limited experience goes, it does not seem to matter much what aspect is chosen, but always in planting one should select, if possible, a background of dark-leaved evergreens, such as Hollies or Yews,



A LARGE BUSH OF THE CHINESE WYCH HAZEL, *HAMAMELIS MOLLIS*. THIS FLOWERS DURING JANUARY AND FEBRUARY.

winter, it is exceptional to find them in any but the most extensive private collections. It is true that if these plants were to blossom in the summer, their flowers would scarcely be noticed among the wealth of blossoms that surround us at that time; but coming as they do at this season, when even greenhouse flowers are scarce, it is difficult to understand why they are not more widely known and cultivated. In the Wych Hazel or *Hamamelis* family we have several hardy shrubs of rare winter beauty, the older members of which have been known in a few gardens for quite a long time, but these have been almost eclipsed by the introduction, some twelve years ago, of a new species from China.

and a position that the rays of the sun can reach nearly all day long. This is not advised on account of shelter or warmth, which do not seem necessary, but merely to get the best effect when the shrubs are in flower. To see bushes such as that illustrated kissed by the winter sun and mirrored, as it were, in a sombre background of evergreens is a sight worth going far to see, and one that will not be readily effaced from memory.

Superior as this comparatively new species is to the older ones, the latter are well worth cultivating, as they flower at different periods of the winter. The best known is probably the North American Wych Hazel (*Hamamelis virginica*), which produces its yellow flowers in

autumn, usually about October. As, however, it is in leaf at that time, the blossoms often pass almost unnoticed. The *Mansak* of Japan (*H. arborea*) is a much more valuable shrub, or small tree, flowering as it does in January, immediately after, and occasionally at the same time, as *H. mollis*. It has deep yellow flowers, which are generally so freely borne as to create quite a shimmering cloud of gold in the winter landscape. Closely following *H. arborea* comes *H. japonica*, which has rather paler-coloured flowers and is of a more lowly stature, while its variety *zuccarini* has pale lemon-coloured flowers that appeal more to some tastes than those of deeper hue. Although all the *Wych Hazels* are rather slow-growing, it cannot be said that they are difficult to cultivate, ordinary well-drained garden soil apparently suiting them to perfection. Once established, they look well after themselves, and need little attention beyond a slight thinning of the branches at rare intervals. H.

NEW PLANT.

Cattleya Trianae Queen Elizabeth.—A very beautiful all-white flower, save for the slight shading of canary yellow in the throat. An exceedingly chaste variety, of handsome proportions. Exhibited by J. Gurney Fowler, Esq., Brackenhurst, Pembury, Kent. Award of merit.

This was the only new plant to receive an award from the Royal Horticultural Society on the 2nd inst.

THE EARLY FLOWERING COSMOS.

Those who have only grown the old *Cosmos bipinnatus* know to their cost that, although it will make a noble foliage plant, it seldom produces flowers until quite late in the autumn, when they are quickly ruined by frost. Thanks to the efforts of our leading seedsmen, we now have an early flowering race, listed in most catalogues as early flowering hybrids. These are particularly valuable annuals for cutting, commencing to flower as they do early in July, and continuing until well into October. Their flowers resemble in appearance those of very graceful single Dahlias, and each has a long, graceful, but wiry stem. Each plant makes a graceful bush about three feet high, and the colours embrace rose, crimson and white. Seeds ought to be sown during February, preferably one or two in a 3-inch pot, and the seedlings raised on a gentle hot-bed or in a slightly heated greenhouse. If these are subsequently potted into 5-inch pots, and hardened off in the usual way, they will make excellent plants for putting outdoors the first or second week in June. So far as our experience goes, this early flowering race of *Cosmos* will do well in any reasonably good soil.

GREENHOUSE SWEET-SCENTED FLOWERS.

It is at least questionable if fragrance in flowers is regarded as of so great an importance as it used to be. This is borne out by the fact that among the newer Carnations and Roses, provided they are of large size and good shape, their scent is in many cases looked upon as of minor consideration, though the old-fashioned varieties of both these genera were remarkable for their delicious perfume. Even in the case of the *Heliotrope*, or *Cherry Pie*, some of the varieties with very large

brown outside and yellowish within. The perfume of the flowers of this *Boronia* is very suggestive of Violets, and a few blooms will make their presence manifest in a good-sized structure.

Luculia gratissima, which was so finely shown at a December meeting of the Royal Horticultural Society and illustrated on page 623, issue December 26, 1914, has large *Hydrangea*-like heads of blossoms, very sweetly scented. Apart from bulbous plants (to be referred to presently) which bloom in a greenhouse during the winter are Carnations, some sorts at least, and *Cheiranthus kewensis*, rather a dull purplish-flowered member of the *Wallflower* family, but most deliciously scented.

It will flower throughout the winter. The large double *Wallflowers* will, if sown in June or July, flower quite early in the spring. They are very sweetly scented. Stocks, too, are very useful for greenhouse decoration nearly all the year round. The tall-growing *Beauty of Nice* is excellent for flowering in the winter, while, by varying the time of sowing, members of the different sections may be had in bloom at various times.

Bulbous plants are in many cases sweetly scented, the fragrance of the *Roman Hyacinth* being far more agreeable than that of the larger-flowered forms. The *Freesias* and some of the *Narcissi* are also remarkable for their scent. Of *Lilies* the sweetest is *Lilium longiflorum*, whose long, silvery trumpets may be had practically all the year round. *L. auratum* is almost too overpowering where at all confined, as in a greenhouse. *Tuberoses* must, of course, be included in any selection of bulbous plants with sweet-scented flowers. Good dormant bulbs may be obtained now, and should be potted with little delay. Many other greenhouse plants with sweet-scented blossoms are at their best at different periods of the year. Among them are some of the *Primulas*, the *Arum Lily*, *Rhododendrons* such as *R. Edgeworthii* and *R. fragrantissimum*, *Cytisus racemosus*, *Daturas* or *Brugmansias*, with long, white trumpet-like flowers; the summer-

blooming *Bouvardia Humboldtii corymbiflora*, the fragrance of whose flowers is suggestive of the *Jasmine*; *Gardenias*, at one time very popular as button-hole flowers, but now not much grown; the tawny-coloured *Magnolia fuscata*, the fragrance of whose blossoms suggests *Pineapple drops*; and others.

Of climbing plants, among the most remarkable for their scent are *Jasminum grandiflorum* and *Rhynchospermum jasminoides*, both with white blossoms.

That well-known annual the *Mignonette* is such a universal favourite that its fragrant blossoms are much appreciated in the greenhouse, especially when they are not obtainable out of doors. Seed sown from midsummer onwards will give flowers



CATTELEYA TRIANAЕ QUEEN ELIZABETH, A NEW VARIETY WITH WHITE FLOWERS.

heads of blossoms are less fragrant than those which are more nearly related to the old *Heliotropium peruvianum* itself. This last is much less used for clothing the walls or pillars of a greenhouse than it used to be, though under such conditions, given a temperature of 50° to 60°, it will bloom throughout the winter.

It is at this season that some of the most fragrant flowers are at their best, notably *Daphne indica*, or *odora* as it is sometimes called, and its white variety *alba*. For general purposes the typical purple-flowered form is preferable, as it grows more freely than the white kind. Another greenhouse shrub remarkable for its delicious fragrance is *Boronia megastigma*, of slender, *Heath*-like growth, with small, drooping, bell-shaped flowers,

throughout the dull period of the year, provided the plants are given as much air as possible. *Nicotiana affinis* and some of its hybrid forms remarkable for their fragrance are also valuable for greenhouse decoration. An old-fashioned stove plant that I have not met with for a long time used to be grown for the fragrance of its dark maroon purple blossoms. This is *Tinnea aethiopica*, a member of the Labiate family. It is of a half-shrubby character, and is easily grown in a warm structure.

As companions to the many greenhouse plants with sweet-scented flowers, a few of those with fragrant leaves claim recognition. Chief among them are the Pelargoniums, with their widely dissimilar scents; the Lemon-scented Verbena, which is hardy in some parts of the country; *Humea elegans*, that also possesses the merit of ornamental flowers; the Pineapple Sage (*Salvia rutilans*), Boronias, and different kinds of Eucalyptus, of which the Citron-scented *E. citriodora* is one of the most pleasing.

H. P.

HOW TO INCREASE SUPPLIES OF VEGETABLES.

BY a carefully planned system of intercropping it is possible to grow more crops than usual, and the following notes are intended to assist readers in this direction. The principal crop is the Potato, as this supplies food all the year round, and an area of 6 rods to 10 rods will be required for this crop by an average family. About three-fourths of this area should be devoted to midseason and late crops, and the remainder to early kinds. Most early Potatoes are short-stemmed, and if given a space of at least 2 feet between the rows, green crops, such as Savoy Cabbages and Kale, could be planted between them after the final earthing. If, when the early Potatoes are planted, the rows are marked, a row of quick-growing Radishes, such as French Breakfast, could be sown between the Potatoes. They would be ready for use by the time the Potatoes were showing through the soil. This plan, however, is not recommended for the stronger-growing late kinds, as it leads to overcrowding.

A succession of Peas can be obtained by sowing early, second early, midseason and late varieties. The distance between the rows of Peas should be determined by the height to which each variety is expected to grow. Thus, a 4-foot Pea should be given a distance of 5 feet between the drills. Now the space between the rows can be made use of by first sowing some quick-growing crops, such as Lettuce, Spinach or Radishes. These crops, if sown or planted when the Peas are appearing above the ground, would be ready for use before the Peas are high enough to provide dense shade. Furthermore, this space can be used for planting out other crops that will continue to grow after the Peas are removed in July. Marrows raised under glass could be planted out between the Peas, say, after Spinach, and when the Peas are gathered they would quickly cover the whole of the space. Celery and Leeks, too, can be planted out in trenches either immediately the Peas are removed or even before, provided plenty of space is allowed between the rows of Peas.

Autumn-sown Onions can be followed by green crops for winter use. Spring Cabbage can be followed by Turnips, Lettuce and Spinach.

Coleworts are very useful vegetables to grow, and if these are sown in May they can be transplanted in any plot that becomes vacant by the removal of earlier crops. They often prove useful for succeeding the midseason varieties of Potatoes.

Cauliflowers such as Early London or Early Forcing will provide a supply of nice heads in July and August if raised under glass in February and planted out in April on a warm, rich piece of ground.

The root crops, such as Beet and Parsnip, require the space allotted to them practically the whole season and do not allow for intercropping; but the round Beet, if sown on a warm border in March, will be ready for use in August or possibly earlier. Carrots, however, differ from the other root crop, inasmuch as it is possible to make a succession of sowings from March to September, and so maintain a long supply of roots. The Early Horn type of Carrot is the best for the first sowing in early spring and for sowing from July onwards. The same kinds are useful for sowing in frames in February or March to provide a supply of tender young roots when vegetables are scarce.

These notes are intended merely as a guide to those who are planning their gardens, and no pretence is made of showing a complete scheme of intercropping. Other methods in addition to the above may suggest themselves to readers, but my object will be accomplished if I have persuaded some cultivators to give more attention than usual to the careful planning of their gardens.

A. E. B.

WINTER SPRAYING OF HARDY FRUIT TREES.

THIS operation might be more suitably termed "February spraying of hardy fruit trees," since it is during that month that the bulk of the work is carried out. The initial stages in the unfolding of the buds coincide

with the earlier hatchings of the eggs of such general insect pests as Apple sucker, aphides and red spider, and since this pre-incubatory phase is the most vulnerable period of the egg, there is good reason for deferring winter spraying to as near the eve of bud unfoldment as is consistent with safety. Frequently at this period, moreover, settled fair weather prevails—a most important factor in achieving results of economic worth.

Winter spraying is accepted as a prime essential in successful fruit culture. It is not practised so generally as it should be, amateur growers being particularly lax in this matter. Though in no way a specific for all the ills fruit trees are heir to, it contributes greatly to success in fruit-growing.

Equipment.—A syringe and a bucket or two are all that is needed where a few trees or bushes only are to be done. Where, however, there are tall trees or a plantation of a rood to an acre in extent, a knapsack spraying machine is indispensable. Where this area is exceeded, a wheel spray pump will be an economic necessity. The

preparation of large quantities of the spraying liquid will also necessitate the use of a barrel of 20 gallons to 40 gallons capacity.

Spraying Solutions.—The use of limewash for destroying algæ, moss, lichen and perchance to some extent hibernating insect pests has long been known. Even now many small fruit-growers rely upon it, though improving on their grandfathers' system of washing the tree trunks, in that they now spray the whole tree. The proportions used are 1 gallon of lime to 10 gallons of water. Careful slaking and subsequent rendering into a milk-like solution are necessary. A pound of soft soap, or size is sometimes added to give the wash tenacity.

Lime Sulphur.—In the combination of these two substances we have one of the most effective sprays extant. The general formula is: Quicklime, 10lb.; flowers of sulphur, 20lb.; water, 10 gallons. Prepare by carefully slaking the lime, and while in the dust-like condition intermix with the sulphur. The mixture is then rendered into a paste by a steady addition of water. When the full quantity of water has been added, the solution is boiled for an hour. After settling and straining, an orange red coloured solution should result. This will need testing with a hydrometer to ascertain whether its strength approximates to that suitable for winter spraying, viz., 1.01. Excepting large fruit-growing establishments, it will be most advisable to purchase this wash ready made and placed on the market at standardised strength.

Caustic Soda Washes.—These share with lime sulphur the reputation of being the most efficient of winter washes. Their merit is further enhanced in that they are clean, easy to prepare, and impart no objectionable appearances to the trees treated. The simplest formula is: Caustic soda (98 per cent.), 2lb.; carbonate of potash, 1lb.; and water, 10 gallons. Prepare by dissolving the salts separately and stirring afterwards into the bulk of the water. The Woburn formula is: Iron sulphate, ½lb.; quicklime, ¼lb.; caustic soda, 2lb.; paraffin (best), 5 pints; and water, 10 gallons. Prepare by dissolving the iron sulphate in 9 gallons of water. Render the lime into a milk and strain into the iron sulphate solution. Add paraffin, stirring vigorously, finally adding the caustic soda in powder form. The writer has found this wash very effective against Apple scab and woolly aphis.

Hints on Application.—A pressure of 80lb. to the square inch is most desirable. Wet the whole of the tree, but avoid wasting. In using lime sulphur or other lime washes, it is imperative that all fittings and machine be thoroughly rinsed immediately after the cessation of work. The face and hands must be protected when applying these washes, particularly when using the caustic soda washes.

Cost of Spraying.—This is largely governed by the apparatus used, local rate of wages, and the character of the fruit trees or plantation. Using a knapsack sprayer and paying the operator 6d. an hour, a bush Apple tree 9 feet to 10 feet high and 8 feet to 9 feet in expanse will cost about 1½d., this sum including cost of wash (half a gallon on an average) and labour. An acre of this type of tree planted 12 feet apart each way would require about 150 gallons of wash at a cost of about 10s. 6d., the cost of application also averaging 10s. 6d.

Morpeth.

C. W. MAYHEW.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Strawberries.—When the flower-spikes are developing, the plants will need a warmer temperature. Give them plenty of stimulants till the flowers begin to open. During the flowering stage keep the atmosphere on the dry side and encourage a free circulation of air during fine, congenial weather, but avoid cold draughts. When the fruits have set, reduce them to five or six of the most promising, and secure the trusses to stakes. The temperature of the house may now be raised to 60° or 65°, syringing the plants two or three times a day with lukewarm rain-water. Introduce fresh batches of plants into heat as required.

Cherries in Pots.—Much care is needed in the management of these till the fruits have set. At no time must they be unduly hastened by the use of artificial heat. Water sparingly till the fruits have set, using water which is of about the same temperature as the house. If the trees were repotted in the autumn, no stimulants will be needed till the fruits are swelling. Fumigate the house with a nicotine compound just before the trees commence to flower.

Early Pot Vines.—As soon as the berries are large enough, the bunches must be thinned. Black Hamburg must not be thinned too much, or the bunches will be loose. Foster's Seedling may be more severely dealt with. The Vines will now require very liberal treatment in regard to watering and feeding. It is a wise plan to fill the pots twice when water is needed. The temperature of the house may now be raised to 70° at night, and full advantage must be taken of sun-heat by closing the house early in the afternoon. Encourage a moist atmosphere at all times.

Plants Under Glass.

Carnations.—The young plants which were potted up last month may now be stopped. Continue to pot up cuttings which are sufficiently rooted, and keep them close for a few days till the roots are again active. Malmaisons may now be more liberally treated in regard to watering. Keep the growths secured to neat stakes. If the roof glass needs washing, this must be done, as the plants need all the light possible. Fumigate occasionally to destroy aphids.

Pot Roses.—As the plants approach the flowering stage they will require more water. Stimulants may also be given more liberally. The Rose maggot must be watched for, or it will spoil a great many of the flower-buds as well as disfigure the foliage. The house must be ventilated with due consideration to the outside conditions, or mildew will spread rapidly. This pest should be anticipated by the discriminate use of flowers of sulphur. Roses planted out may be given copious supplies of liquid manure when in active growth. A top-dressing of rich farmyard manure will also be of benefit.

Climbing Plants.—Plants growing over the roof in the conservatory may now have their annual pruning or thinning. Now is the time to give them a thorough cleaning if they are infested with mealy bug. Well wash the glass and woodwork, and remove an inch or 2 inches of the surface soil from the border and replace with fresh material.

The Flower Garden.

Herbaceous Borders.—The work of making new borders or replanting old ones must be persevered in whenever the ground is in suitable condition. Most perennial subjects require a deeply cultivated, well-manured soil in which to thrive. Well-seasoned farmyard manure is perhaps the best for this purpose, but, failing this, well-rotted leaves will do. Soot, too, may be used with good effect.

Michaelmas Daisies.—There are now some very beautiful varieties of these late autumn-flowering subjects, and few plants stand the strain of our typical autumn weather better than these. Unfortunately, their real characteristics are often spoiled by growing the clumps too large. They need reducing every year, leaving no more than six or eight shoots on each plant.

The Rock Garden.—Now that growth is becoming active, a constant watch must be kept for slugs, as there is nothing more disappointing than to have one's choice plants destroyed by these marauders. Vegetables which they are known to eat should be laid about as traps. A ring of fine coal-ashes placed around some of the choicer plants will keep them at bay. The planting of many subjects may be proceeded with now.

The Hardy Fruit Garden.

Preparations for Grafting.—Any varieties which are considered useless may be replaced by grafting, providing the trees are in good health. They may be headed back now in readiness for the operation when the sap is rising in the spring. In the meantime, collect suitable shoots of the varieties required, tie them in bundles with a label attached, and heel them in at the foot of a north wall.

The Kitchen Garden.

Celery.—A sowing may be made now for the earliest supplies. Sow the seeds thinly in shallow boxes, and place them in a house with moderate warmth.

Leeks.—A small sowing of Leeks for early use should be made now. They may be treated as advised for Onions in a previous calendar.

Parsnips.—No time must be lost in sowing this important vegetable as soon as the ground is in suitable condition. Any roots still in the ground may now be dug up and stored in a cool place.

Shallots and Garlic.—These may be planted as soon as the ground is in workable order. Plant them in rows 1 foot apart. The ground should be richly manured and deeply dug.

Seakale.—The whole of the crowns may now be lifted and placed closely together under a north wall. The best roots may now be prepared for planting as soon as the ground is ready. In the meantime, tie up the thongs in bundles of fifty, and cover them with soil to the depth of 4 inches or 5 inches. E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

Fruit Under Glass.

Peaches and Nectarines.—The early house will benefit from a fumigation, as fly is always troublesome in the early stages of growth. If there is only a slight attack in one or two places, the use of an insecticide will be sufficient, applied to the parts affected. The syringe must be used freely on bright days, both morning and afternoon, closing the house early to retain as much sun-heat as possible.

Second-Early House.—Trees in this will already be swelling their flower-buds, and should receive a fumigation, which will keep the house free from insect pests until flowering is over. Not much artificial heat will be required during the daytime, unless the weather is very cold. A slight circulation of heat in the pipes at night will be necessary.

Plants Under Glass.

House Scrubbing.—The cleaning of any plant-houses that is not already done should now receive attention. When possible, the interior of glass-houses should be painted about every third year; this not only greatly improves the appearance generally, but is a splendid help in keeping insect life in check. The plants, having been removed during the house scrubbing, should be well sponged to get rid of any filth before returning them to their newly cleaned quarters. Such plants as *Panicum*, *Episcia fulgida*, *Ruellias* and *Selaginellas* should be propagated, to furnish nice young clean plants to replace the exhausted ones which were used to furnish the edges of the plant-house stages.

The Hardy Fruit Garden.

Wall Trees.—Any Plums, Apricots, Cherries and Pears not yet tied or nailed should be dealt with before the buds get too far advanced. Peaches and Nectarines are better left loose for a while longer, as this helps to retard the flowers, which are so often injured by late spring frosts. When the train-

ing of the trees has been completed, the borders in which they are growing should receive attention. Too often the majority of the roots exist under some hard, trodden alley, which rarely, if ever, gets any manure or attention. If possible, top-dress with good fresh loam and well-decayed farmyard manure; then point over lightly with a fork.

Loganberries.—These and the many other hybrid fruits of this type are well worth inclusion in the fruit garden. They add variety to the dessert fruits and make a welcome change among fruits used for preserving. They are all of free growth and easy culture, not being at all particular as to soil. The same treatment as given to Raspberries will suit them, provided they are allowed plenty of room on which to train their long growths.

The Kitchen Garden.

Broad Beans.—Where required early, a sowing may be made in some warm, sheltered border. If the weather and condition of the soil do not permit of this, sow thinly in boxes indoors, this vegetable transplanting quite readily.

Spinach.—As soon as the condition of the ground will allow, make a sowing of this vegetable. If a very early supply is needed, make a sowing indoors. With a temperature of 55° to 60° Spinach should be ready to pick in a month to five weeks' time, and the quality is very superior to Spinach grown outdoors.

Cucumbers.—Seed for the chief summer crop may be sown in a stove or warm pit. Except that the flowers do not require fertilising, the culture is much the same as that of Melons. Being very subject to attacks of red spider, the syringe must be used very freely, especially on the under sides of the foliage. Cucumber plants are of vigorous and rapid growth; therefore it should be seen that they do not starve or waste more time than is necessary in the small seed pots.

Shallots may now be planted when a piece of ground has been prepared for them. Do not plant deeply, and make the lines 15 inches apart. This crop will thrive on much poorer land than is generally prepared for Onions.

Rhubarb.—In many gardens this subject is much neglected, sometimes receiving no attention for several years together. New plantations ought to be made occasionally, and the present is a suitable time to do this. Before planting, trench the ground and treat it with a very liberal dressing of cow-manure. It is not advisable to pull Rhubarb from new plantations during the first season.

The Flower Garden.

Clematises.—Plants of the *Jackmannii* type ought now to receive attention in the matter of pruning. Having prominent buds, the living growths will now be easy to distinguish. After all dead wood has been removed, the previous year's growths should be reduced to about half their length, pruning some hard back so as to encourage young growths, which will keep the lower part of the plants furnished.

Sweet Peas.—It is now generally acknowledged that to get the best results Sweet Peas ought to be sown in pots during October or early in November. Any seeds which were not sown at that time should be got in at once if the plants are to be in flower by the end of June. Where time and room will allow, sow only one seed in a 3½-inch pot. Instead of the usual potsherds, place either large pieces of turf or fairly new leaf-mould in the bottoms of the pots; this will prevent the plants from starving when planting-out time draws near.

Lobelia cardinalis and its varieties should now be divided into moderate-sized pieces and either be potted or boxed up. They should not be subjected to a strong heat. A newly started vinery or Peach-house will suit them until they are fairly started into growth, when they may be removed to cold frames.

Salvia patens.—If it is desired to increase the stock of this very fine blue flower, let the plants be placed in heat so as to produce young growths suitable for making cuttings. When large enough for taking, dibble them into sandy soil in either pots or boxes and plunge in a case with bottom-heat. This *Salvia* is also easy to raise from seed, which should be sown now in heat.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)
Castlemilk Gardens, Lockerbie, N.B.

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

Offices: 20, Tavistock Street, Covent Garden, W.C.

ANSWERS

TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FRUIT GARDEN.

VINE STEMS SPLITTING (A. K. M.).—It is rarely one comes across a case of Vine stems splitting. We have never known this to be caused by hard forcing as suggested. The invariable cause, in our experience, has been the subjecting of the Vines to too much frost in winter, and to too sudden a thaw afterwards. (The splitting may not be evident at the time; not till growth begins.) Such injury must undoubtedly weaken the Vine for the first season, and so affect its power to swell and ripen so good a crop as usual. But afterwards, when the wounds have healed, the Vine need not be permanently injured. The best black late Grape to go with Gros Colman and White Muscat will be Appley Towers or Black Alicante. The former is the better flavoured.

TREES AND SHRUBS.

NAME OF CYPRESS (Yew Tree).—The Cypress described in your letter is doubtless *Cupressus sempervirens* var. *fastigiata*. We do not think that it can be procured in this country, but it is possible that Messrs. Rovelli and Fratelli, nurserymen, Pallanza, Lago Maggiore, Italy, could supply plants. They should be procured in pots, as they are difficult to transplant successfully from the open ground.

MISCELLANEOUS.

PROTECTING PEAS FROM MICE (A. T. S.).—If bulbs and Peas are sprinkled with paraffin before planting or sowing, as the case may be, they are often safe from attacks by mice, although it does not always prevent the mice from sampling them. Some people find that sprinkling a little paraffin over the ground acts as a deterrent. Care must be taken, however, that the paraffin is applied with care. The best way to hollow out a solid log is to bore a number of holes into it with an auger having a 1-inch to 1½-inch bore; then with a mallet and chisel chip away the remaining wood. As it is a rather arduous task, it would be advisable to get an experienced wood worker to do the work. The best preparation to make the bark of Apple trees, &c., distasteful to rabbits or hares is Renardine, manufactured by Messrs. Gilbertson and Page, Hertford.

VARIOUS QUESTIONS (E. P.).—1. Neither the Thuja nor Cypress would look like Yew. The first does not transplant well unless in small examples, and both to some extent resent the continuous shearing essential to keep them within limited bounds of a small hedge. We should prefer Yew, the golden one if the green is objected to. Both endure pruning well. If a plant of quicker growth than this is required, try Chinese Juniper. 2. We do not see the need of planting anything to shut out the Apple trees, and for a few years at least they would be in sight above the hedge referred to in No. 1. If the Apple trees are not an ornament where they stand, they might, if not too large, change places with the Nuts. The Apple trees opposite the Barberry appear out of place, and both, we think, would be better away. 3. If you put a hedge here, how do you propose entering the rock garden? The latter already appears to us in a wrong position at the kitchen garden end of the ground, and

if you arrange a hedge in front of it, the rock garden will fall between this and the brick wall. If the above plants were removed, a raised shrub border might be formed for screening purposes, planting it with *Berberis Darwinii*, *Spiræas* and *Weigelas*. 4. We cannot answer this satisfactorily. Few shrubs do well under trees, and success would depend much on their nature and the amount of shade they cast. 5. We think the Ivy the better ornament in the circumstances. If shrubs are employed at either end, they should be of Winter and Portuguese Heaths, *Skimmias*, and *Berberis Wilsonæ* (in full sun), with *Forsythias* at the back. 6. The rough grass might be trenched in and the place planted with hardy Heaths. With these could be associated a few Japanese Lilies of the speciosum class. 7. For destroying ordinary earthworms in pot plants, mix a strong dose of mustard and water in a pail and stand the plants in it for a few seconds. This or lime-water is usually effectual for the others named. The keeping of Nuts in the way you describe is well known to, and frequently adopted by, country folk, whose primitive methods often surpass those of the modern type. Green fly frequently infests bulbs long kept in cellar or warehouse quite away from other forms of vegetable life, and if only a solitary female insect existed on a bulb in August, it might easily account for the conditions you describe. The best advice we can give you in respect to the rock garden and its surroundings is that you confer with an expert on the spot. It is not possible accurately to advise from the sketch submitted, and the arrangement appears at present somewhat complicated.

NAME OF FRUIT.—W. F. M. C.—The variety is Pearn's Pippin, rather out of character. This may be caused by the situation or position of the tree, or by the stock on which it is worked.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

WE are pleased to be able to record an appreciable increase both in volume and variety at the meeting held on the 2nd inst. as compared with that of the last meeting. Several exhibitors put in an appearance for the first time this year, while fruit and flowers were thoroughly representative in all departments. To demonstrate late-keeping varieties of fruit, Messrs. Cannell staged some seventy dishes of dessert and culinary Apples of superb quality. Mrs. Denison sent about half that number of Potatoes, also a very good sample. The fine bank of forced shrubs from Southgate, opposite the entrance, attracted everyone, while Messrs. Sutton's Primulas and Cyclamen were one of the features of a good meeting. Carnations, alpine and Orchids were freely shown, and contributed much to an interesting display. The show was visited by a goodly throng during the afternoon. Only one novelty received recognition.

FRUIT AND VEGETABLE COMMITTEE.

Present: J. Cheal, Esq. (chairman), and Messrs. W. Bates, E. Beckett, A. Grubb, A. R. Allan, G. Kelf, Horace J. Wright, J. Davis, J. E. Weston, A. Bullock, G. Reynolds, P. D. Tuckett, E. A. Bunyard, W. H. Rivers, Owen Thomas and W. Poupart.

Messrs. H. Cannell and Sons, Eynsford, Kent, staged a magnificent collection of some seventy dishes of Apples and Pears, the former in both dessert and culinary sorts, with the express object of demonstrating their late-keeping qualities. Not only was the object attained; the whole of the varieties were in as high excellence as might have been expected in October, and as an exhibit of high-class fruits it would be difficult to equal, much less excel. Wedded to excellent quality was the educational value of the display. Of dessert sorts we noted Edward VII., Belle de Boskoop, Belle de Pontoise, Baumann's Red Reinette, Barnack Beauty, Allington Pippin, Winter Peach, Calville Malingre and Newtown Pippin. Of culinary kinds we considered Annie Elizabeth, Smart's Prince Arthur (a splendid sample, and not a bad eating sort), Wellington, Lane's Prince Albert, Bramley's Seedling, Newton Wonder, Reinette du Canada, Norfolk and Striped Beaufin to be among the finer dishes, though all were of admirable quality and finish. Some good dishes of Pears were on view, that of Uvedale's St. Germain of exceptional colour also. A silver-gilt Knightian medal was deservedly awarded.

Grape Fruits were shown by Sir Albert Rollet, St. Anne's Hill, Chertsey, a growing plant nearly eight feet high bearing several handsome fruits.

Mr. Will Taylor, Hampton, Middlesex, displayed an excellent collection of well-kept Apples and Pears, some forty dishes, chiefly of Apples, being staged. Quite a large number of varieties exhibited high coloration, a not infrequent occurrence with varieties grown upon the light, well-drained loam of the district named. Some of the more prominent dishes were Annie Elizabeth, Newton Wonder, Gascoigne's Scarlet, Cox's Orange Pippin, Blenheim Orange Pippin, Ribston Pippin, Bismarck (particularly good and well coloured), Beauty of Kent (of quite remarkable colour), Norfolk Beaufin, Claygate Pearmain, Wellington and Pince's Golden Pippin, the latter an ideal dish. Pear Bergamotte Esperen was also very fine. Silver Knightian medal.

Mrs. E. H. Denison, Little Gaddesden, Herts (gardener, Mr. A. G. Gentle), exhibited some three dozen dishes of Potatoes, for which a silver Knightian medal was awarded. The whole of them were in excellent condition, though we considered that Great Scot, Abundance, Epicure, Schoolmaster, Mr. Bresse, Carter's Emperor, The Factor, King

Edward (a very fine sample) and Ringleader were of outstanding merit. The exhibit attracted considerable attention.

ORCHID COMMITTEE.

Present: J. Gurney Fowler, Esq. (chairman), Sir Harry J. Veitch, and Messrs. J. O'Brien, de B. Crawshaw, W. Bolton, S. W. Flory, W. H. White, A. Dye, W. P. Bound, J. E. Shill, W. H. Hatcher, J. Cypher, W. Cobb, T. Armstrong, F. J. Hanbury, Pantia Ralli, Stuart H. Low, Gurney Wilson, J. Charlesworth, C. H. Curtis and R. A. Rolfe.

Orchid groups were displayed on a more extensive scale, and many beautiful kinds were on view. In *Odontoglossum amandens* variety Queen of Spain (*O. wilckeanum* × *O. Rolfeæ*), Pantia Ralli, Esq., Ashted Park, Surrey, had a very handsome novelty, the greater leaning perhaps being to the first-named parent. The ground colour of the sepals and petals is soft yellow, so heavily barred and blotched with chocolate and crimson as to be in the nature of veins. A very striking flower.

Messrs. J. and A. McBean, Cooksbridge, received a silver Banksian medal for a choice lot, which included the blood-crimson *Odontiodas Doris* and *Cooksonia*, *Lælia anceps schröderiana*, L. a. Sanderi (both white-flowered), an interesting variety of *Cypripediums*, together with *Cymbidium Alexanderi* (rosy coloured) and *C. Schlegelii* (whose lilac-coloured sepals and petals are freckled and spotted with crimson).

Messrs. Stuart Low and Co., Jarvisbrook, Crowborough, had the rich orange-coloured *Lælio-Cattleya Doris*, *Lælia anceps Bull's White* (very pure and good), *Odontoglossum Vuylstekeæ vivicans* (a strange commingling of bronze and yellow), *O. Harry-crispum* (very dark form), with *Brassocattleyas* and others. Silver Banksian medal.

Messrs. Cypher and Sons, Cheltenham, staged a handsome lot of *Cypripediums*, of which *C. Euryades splendens*, *C. Helena Westonbirt* variety and *C. aureum virginale* (the latter with a magnificent white dorsal petal) were the chief. *Lælia anceps Hillii* (very fine white), *Cymbidium* in variety and the curious and rare *Masdevallia schröderiana* were also noted in a group characterised by much freshness. Silver Banksian medal.

Messrs. Armstrong and Brown, Tunbridge Wells, were the recipients of a silver Flora medal for a handsome group, in which the outstanding feature was some fifty well-flowered plants of *Cattleya alba* Maggie Raphael, the white-petalled, crimson-lipped flowers very handsome. *Miltonia St. André* (white, with crimson base), *Cypripedium Helen II.* variety Fascinator (rosy colour), *C. Venus Orchidhurst* variety, *Brassocattleya Cliftonii albens* variety, *Masdevallia courtauldiana* (a rather rare species with rosy-coloured flowers), *M. schröderiana*, a variety of *Odontoglossum crispum illustrissimum* crosses, and the violet and crimson coloured *O. thomsonianum* (whose forked, extended racemes promise a considerable profusion of flowers) were others shown.

Messrs. Charlesworth and Co., Hayward's Heath, also displayed a most interesting group—*Brassocattleya Joan* (of rosy pink hue), *Odontioda Wilsonii* (rosy purple, flecked with white), a magnificent raceme of the white-flowered *Odontoglossum armainvillieriensis*, *O. Doris* (dark chocolate), a specimen of *Cymbidium insigne* bearing eight racemes of flowers, the very striking *Sophracattleya Saxa* (of camellia red shade), with *Lælia anceps Stella* and *Lælio-Cattleya Felicia*. Silver Flora medal.

Messrs. Sander and Sons, St. Albans, also had an interesting variety, among which we noted the beautiful *Cattleya Empress of India*, *Brassocattleya sulphurea amabilis*, *Odontoglossum amandum* variety *Grandesse* (creamy yellow with crimson bars), *Cymbidium gottianum* and the quaint *Epidendrum polybulbon alba* (of which one or two pans were shown). The whole plant is not more than two inches high, the narrow sepals and petals coloured yellow, and pure white lip. A very handsome *Cypripedium* was labelled "Moonbeam × *villosum aureum*." Silver Banksian medal.

FLORAL COMMITTEE.

Present: H. B. May, Esq. (chairman), and Messrs. W. A. Bilney, F. W. Harvey, B. Crisp, R. Hooper Pearson, E. A. Bowles, W. J. Bean, J. Green, G. Reuthe, G. Harrow, J. F. McLeod, J. W. Moorman, C. R. Fielder, W. Howe, T. Stevenson, J. Hudson, J. Jennings, W. Bain, C. Dixon, J. Dickson, A. Turner, C. E. Shea, C. E. Pearson, W. P. Thomson, E. H. Jenkins and G. Paul.

Messrs. Barr and Sons, Covent Garden, W.C., arranged a very beautiful lot of early flowering plants, of which *Snowdrops*, *Gaultheria procumbens*, the early hardy *Cyclamen*, hardy Heaths, *Eranthis cilicicus*, *Narcissus minimus*, *N. Bulbocodium monophyllum* (very chaste and beautiful), *Crocuses* in many kinds, *Lenten Roses*, *Adonis amurensis* and *Iris stylosa* were among the more choice. *Freesias*, in pots, were also charmingly displayed, and fragrant withal. Bronze Flora medal.

Messrs. Stuart Low and Co., Enfield, Middlesex, displayed *Cyclamen*, *Carnations*, *Camellias*, *Acacias* and other greenhouse flowers. The *Cyclamen* were very beautiful and in great variety. Of the *Carnations*, of which a large group was shown, *Champion* (scarlet), *Princess Dagmar* (crimson), *Lady Fuller* (salmon), Mrs. C. F. Raphael (rose scarlet) and *Gorgeous* (corise) were among the more important. Bronze Flora medal.

Messrs. R. F. Felton and Sons, Hanover Square, again showed the red-fruited *Solanum ciliatum*, a plant of great beauty and ornament, to which we have previously referred. *Lilacs*, *Gelder Rose* and *Eucalyptus globulus* were also well displayed, with *Ruscus racemosus*, *Pittosporums* of sorts and *Olearia Forsteri* as garniture.

Messrs. W. Wells, Limited, Merstham, showed *Carnations* *Pink Sensation*, *Aviator* (scarlet), *Red Benora*, Mrs. G. Lloyd Wigg (white), *Laura Webber* (pink) and *Good Cheer* (pink), a set of novelties for distribution this year.

Mr. Clarence Elliott, Stevenage, displayed an exhibit of alpine, in which an extensive colony of *Saxifraga burseriana* was a chief feature. *Crocus* species, *Gentiana acaulis* and the early *Cyclamen* were shown with rock shrubs.

Messrs. H. B. May and Sons, Edmonton, displayed groups of *Cyclamen latifolium*, *Primula obconica*, *Calla alocasiifolia*, an evergreen species of dwarf habit, with *Cinerarias*, *Azalea Deutsche Perle* and other plants. The *Cyclamen*, in salmon, white and crimson, were very good. Silver Flora medal.

Messrs. Herbert Chapman, Limited, Rye, had well-flowered pans of *Cyclamen ibericum*, together with vases of hybrid *Freerias* and hybrid *Narcissi* in variety. The rather conspicuous red-cupped fungus, *Peziza coccinea*, was also shown in capital form.

Mr. James Box, Hayward's Heath, had a delightful lot of *Saxifraga burseriana*, *Cyclamen Coum*, *Erica mediterranea hybrida*, *Hepaticas* in variety, *Parochetus communis*, early *Iris* in variety and *Primula malacoides*. *Marrubium sericeum* and well-flowered examples of *Hamamelis* were also on view. Bronze Banksian medal.

Messrs. J. Piper and Sons, Bayswater and Barnes, showed alpine and shrubs. *Cyclamen* were very charming, also the white-flowered *Saxifraga burseriana*. The variety of *Saxifragas* was very charming; the shrubs were most interesting. But where was the need for the discordant purple background? Bronze Banksian medal.

Miss C. M. Dixon, Elmercroft Nurseries, Edenbridge, Kent, displayed *Primula malacoides*, *Hyacinth Lord Balfour* (red mauve), *Tulips* and *Primula obconica* in distinct forms, the colour shades blending in a very charming manner; an object-lesson in tasteful arrangement.

The Misses Hopkins, Shepperton, showed single and double *Primroses*, *Hepaticas*, early *Cyclamen* and other hardy flowers.

Messrs. R. and G. Cuthbert, Southgate, had a lovely group of forced shrubs springing from a groundwork of Ferns. *Magnolias*, *Lilacs*, *Prunus*, *Pyrus atrosanguinea*, *Azalea mollis* in variety, *Forsythia* and other plants were delightfully arranged. We believe this to be one of the finest groups ever staged at this early season. Silver-gilt Flora medal.

Messrs. Waterer, Sons and Crisp, Bagshot and Twyford, displayed *Iris alata*, hardy *Heaths*, early *Cyclamen*, *Snowdrops*, *Crocuses* and a considerable variety of *Saxifragas* on rockwork. The dainty *Sisyrinchium grandiflorum* was also on view. Silver Banksian medal.

Messrs. G. and A. Clark, Limited, Dover, had a good strain of *Polyanthuses* with flowers of large size. Many well-flowered examples of *Daphne Mezereum alba* were also shown.

Messrs. Sutton and Sons, Reading, had very fine basket groups of *Cyclamen* and *Primulas*, a considerable table space being occupied. Of *Primulas*, *Reading Blue*, *Double White* and *Prince of Wales* (red) were the chief. The *Cyclamen*, represented by increased numbers, also afforded the greater display by reason of the mass of flowers 8 inches or so above the handsome leaves. In this way we saw *Giant Crimson*, *Superb Fringed*, *Rose Pink*, *Salmon Scarlet*, *Giant White*, *Salmon Pink* and *Sutton's Fringed Pink Pearl*, the last of the "Butterfly" class, of handsome proportions, also of delightful colour. A capital exhibit in every way. Silver Flora medal.

Messrs. Wills and Segar, South Kensington, arranged a table of *Orange trees* in fruit, together with *Azaleas*, *Cinerarias* and *Cyclamen* in fine flower. The plants were in ample groups, one of *Giant White Cyclamen* being particularly pure and well grown. Silver Flora medal.

Mr. G. Reuthe, Keston, Kent, had delightful pots of *Snowdrops*, such lovely winter *Crocuses* as *Imperati*, *Sieberi* (mauve) and the golden yellow flowered *Korolkowii*; double blue *Hepatica*, *Cyclamen Atkinsii purpureum* (a very charming plant), *Erica codonodes*, *Eranthis cilicicus*, and a great variety of *Saxifragas* in an exhibit of alpine and shrubs. Among the latter, *Berberis Bealii*, yellow flowered and charmingly fragrant, was noted. Bronze Flora medal.

Messrs. J. Cheal and Son, Crawley, displayed alpine and shrubs in conjunction with rockwork, employing groups of *Iris reticulata*, *Primula denticulata*, *Anchusa myosotidifolia*, *Saxifragas*, *Veronica Bidwellii* and other plants. *Rhododendron Jacksonii* (rosy pink) was in full bloom, the unforced plants having been lifted from the open in the developing bud stage a week earlier. *Pyra-cantha angustifolia*, a well-armed species, was full of its orange-coloured fruits. It is highly ornamental.

Messrs. W. Cutbush and Sons, Highgate, N., displayed many interesting and beautiful things, particularly *Carnations* and alpine. Of the former, Mrs. L. D. Fullerton (fancy), *Lady Ingestre* (pink), *Lady Coventry* (a scarlet of Malmaison proportions), *Carola*, *Sunstar* (yellow) and *White Swan* were the best. A nicely flowered plant of *Camellia reticulata* was on view. In the alpine section a group of two or three dozen *Iris sind-pers* was in the nature of an "eye-opener," and was greatly admired. *I. reticulata Krelagii*, *Hepaticas*, *Daphne Dauphinii*, *Christmas Roses* and *Saxifraga burseriana major* were also finely represented. Silver Banksian medal.

The St. George's Nursery, Harlington, showed three fine basket groups of *Cyclamen* Mrs. L. M. Graves (scarlet), *Queen Mary* (pink) and St. George (salmon, with handsome marbled foliage, which alone was a great feature. It is a most striking variety).

Mr. Amos Perry, Enfield, again showed a table of hardy evergreen Ferns, comprising leading varieties of the tasseled *Hart's-tongue* (*Scolopendrium*), *Polypodium cambricum* and the more densely plumose forms of *Polystichum*. Each was well represented. Silver Flora medal.

Mr. L. R. Russell, Richmond, was awarded a silver Banksian medal for a collection of fruiting and other shrubs, such as *Skimmia*, *Aucuba*, *Garrya*, *Hamamelis*, forced *Wistaria* and *Prunus triloba*.

Messrs. Allwood Brothers, Hayward's Heath, again showed *Carnations* finely, including *Salmon Enchantress*, *Rosette* (cerise), *Terrific* (pink, of the Malmaison class), *Gorgeous* (cerise) and *Philadelphica* (a pleasing cerise pink with good lighting-up qualities). Mary Allwood was very good. Bronze Flora medal.

The Guildford Hardy Plant Nursery sent a variety of alpine and shrubs, the groups of *Saxifraga burseriana major*, *Veronica pimeloides*, *Muscari azureum*, *Senecio Grayii* and *Daphne floniana* being among the more pleasing items.

NATIONAL CHRYSANTHEMUM SOCIETY.

ANNUAL MEETING.

THE annual meeting of this society was held on the 1st inst. at Carr's Restaurant, Strand. In the absence of Sir Albert Rolitt, who was prevented from presiding by indisposition, Mr. Thomas Bevan took the chair. The adoption of the report and accounts for the past year was formally moved by the chairman, and supported by Mr. E. F. Hawes, who specially alluded to the arrangements made by the National Chrysanthemum Society to hold its 1915 show at the Royal Horticultural Hall, Westminster. He hoped every member would do his utmost to make the show in a new place a success. The election of officers then took place, with the following results: Sir Albert Rolitt, president; Mr. John Green, treasurer; Mr. Thomas Bevan, chairman of committee; Mr. E. F. Hawes, vice-chairman; Mr. Harman Payne, foreign secretary; Mr. R. A. Witty, general secretary; and Messrs. Stevens and W. Walker as auditors. As one-third of the executive committee retire annually, the vacant places have to be filled. The following gentlemen were therefore elected: Messrs. Caseton, Emberson, Ingamells, McKerchar, Noyce, Riding, Runciman, Searle, Springthorpe, Toms, W. Wells, Horace Wright and Faulkner.

A letter was read from Mr. J. W. Moorman resigning his place on the various committees. The resignation was accepted with regret, and many members spoke of the excellent work done by Mr. Moorman during his connection with the society and of his personal merit. Advancing years are the only reason for this gentleman's retirement.

An expression of sympathy was directed to be forwarded to those French Chrysanthemum societies whose members had fallen in the war, been wounded or taken prisoners, some of whom were personally known to the members of the National Chrysanthemum Society.

Mr. Witty referred to the proposal to extend the educational work of the society, and said that in addition to conferences it was intended to inaugurate a series of lectures dealing with various aspects of the Chrysanthemum, cultural and otherwise. It was announced that Mr. Harman Payne would be one of the first to give a paper, the subject being "The Chrysanthemum from a Poetic, Mythical and Romantic Point of View." The series will begin in the spring, and members are cordially invited.

The election of new members brought the meeting to a close, and after a vote of thanks to the chairman the members dispersed after a pleasant evening's work.

WARGRAVE AND DISTRICT GARDENERS' ASSOCIATION.

THE first meeting of the present session took place on January 27, and a good number of members were present to hear a lecture on "Some Recent Researches on Plant Nutrition," by Mr. Alfred Machen. The lecturer, a colleague of Professor Bottomley of King's College, London, was listened to with rapt attention while he detailed the experiments made on the action of bacteria on peat, and how it can be converted into most valuable nitrogenous and phosphatic manure. The result of this action gives a black powder, which will shortly be introduced to the horticultural and agricultural world under the name of "Heemogen." A large number of lantern slides (shown by Mr. Coleby) were exhibited illustrating the lecturer's remarks and proving most conclusively that the manure is a real plant food, for the plants to which it had been applied in very small doses were models of what they should be. The Curator of Kew Gardens and many head-gardeners had made extensive trials of the material during the past twelve months, and were convinced of its great utility. A good discussion followed and many questions were asked, which the lecturer answered. A hearty vote of thanks was accorded Mr. Machen, and he briefly replied. Mr. R. Doe, head-gardener to Sir Charles Henry, Bart, M.P., at Parkwood, exhibited a splendid collection of Apples and Pears, with plants of *Begonia Gloire de Lorraine*, *Primula malacoides* and *Cyclamen* interspersed between the dishes; and Messrs. Waterer, Sons and Crisp, Limited, staged an interesting group of hardy plants suitable for rockeries. Both exhibitors were thanked for their displays.

BOURNEMOUTH HORTICULTURAL SOCIETY.

ANNUAL MEETING.

THERE was a good attendance of subscribers at the annual meeting held on January 29. The annual report showed a nice balance in hand after a substantial sum had been given as a donation to the Mayor's War Fund. All the three shows—spring, summer and autumn—proved a success from every point of view. Especially fine were the Chrysanthemums and fruit at the autumn show. The members of this society and the townspeople generally very much appreciated the visit of the deputation, con-

sisting of Sir Harry J. Veitch, the Rev. W. Wilks and Mr. S. T. Wright, from the Royal Horticultural Society. The following awards were made, namely: Three silver cups, three silver-gilt Banksian medals, three silver-gilt Flora medals, two silver Knightian medals and three silver Banksian medals. All the officers were re-elected, and will make every effort to carry on the good work of the society successfully as in the past.

HIGHCLIFFE GARDENERS' ASSOCIATION.

MR. C. J. GLEED, staff teacher, Hampshire County Council, gave a very instructive lecture on "Fungoid Pests" on Monday, February 1. Mr. Murray, Sopley Park Gardens, occupied the chair, and there was a good attendance of members. The lecturer drew attention to the harm resulting from overfeeding crops with nitrogenous manures, which caused a too sappy growth and a predisposition of such to attack by fungoid pests. He referred to silver-leaf in Peaches, Nectarines, Plums and other kinds of plants, and said the disease could be spread from tree to tree by various means, pruning, &c.; also, that where the wood was dead the fruit spores developed. Canker, said the lecturer, was caused by a wound parasite. Varieties with thin rinds were the most subject to canker, but even these were not so liable when grown on a strong Paradise stock. He described American mildew, how it could be detected at the base of the spines near the ends of the shoots on Gooseberry bushes, and strongly recommended cultivators who found it on their plants to carefully cut off such shoots, put them in a box, and forthwith burn both box and affected shoots. In regard to the use of sulphur, Mr. Gleed said the ordinary flowers of sulphur, owing to the smoothness of the particles, was not as efficacious as the black, coarser-grained sulphur. Potatoes should be sprayed with Bordeaux mixture at least twice—first at the end of June if close, moist weather came, then again three weeks after—and, if necessary, the third time about the middle of August. Much more valuable information was given, and both the lecturer and chairman received cordial votes of thanks.

CHELMSFORD AND DISTRICT GARDENERS' ASSOCIATION.

THE eighth meeting of the winter session was held in the East Anglian Institute of Agriculture on Friday, the 29th ult. The president, Mr. E. H. Christy, occupied the chair, and a good number of members were present. Mr. F. A. Waumsley gave a most interesting lecture on "School Gardening." The lecturer, in the course of his remarks, pointed out the following details: Gardening had been taken up by a number of schools, where practical instruction was given. It was not a compulsory subject, and the number of children who had taken it up was considered satisfactory. The subject had been taken up by 2,984 schools, by 51,724 boys and 2,877 girls. Staffordshire stood first among the English counties, Essex taking the fourth place. The effect of such instruction was that it gave the boys a liking for manual work; they took a pride in their own plot, it brought out latent qualities, forethought, taught them to persevere through failure, and was a true education. The school garden contained a demonstration plot, fruit plot and flower plot. In one school the lecturer had seen a weed plot; this was a good idea, as it was as well to know your enemy by sight. Several other points were touched on by the lecturer, all of which opened the field for a good discussion which followed the lecture. At the conclusion of the meeting a hearty vote of thanks was accorded Mr. Waumsley for his lecture.

SCOTTISH HORTICULTURAL ASSOCIATION.

THE monthly meeting of the Scottish Horticultural Association was held in their hall, 5, St. Andrew Square, Edinburgh, on the evening of February 2. There was an excellent attendance to hear the inaugural address of the new president, Mr. William G. Pirie, gardener to C. W. Cowan, Esq., Dalhousie Castle. Mr. David King, Osborne Nurseries, the retiring president, whose term of office has been a most successful one, presided, and introduced Mr. Pirie, who was received with hearty applause. The subject of his address was "Present-day Problems." Mr. Pirie took a wider field than ordinary horticulture, although the subjects dealt with were cognate to gardening. The address was marked by practical knowledge and keen observation, and was heartily received. Among the questions referred to in detail was that of the cultivation of Sugar Beet, which Mr. Pirie considered could be as successfully cultivated in many parts of England and Ireland as on the Continent. The lecturer advocated active assistance on the part of the railway companies, and expressed the opinion that if Beet cultivation were fostered by the railways by their giving special facilities, the industry would become established in this country. Another question of importance at the present time—that of small holdings—also received due consideration in its effect on market gardening. A pertinent point was made of the attitude of the Scottish Board of Agriculture in apparently proposing to parcel out land for the cultivation of vegetables at rents approaching those fixed for agricultural purposes. This, as Mr. Pirie showed, would be unfair to those holding market gardens at high rents, unless these could be made subject to a Land Court. Another "present-day problem" ably dealt with by the lecturer was that of afforestation, especially as it affected the supply of pit props, which had been largely checked by the war. Other items in keeping with the title of the paper were ably discussed, and Mr. Pirie was warmly thanked for an excellent lecture, which augurs well for his success in the chair during the session.

THE GARDEN.

No. 2257.—VOL. LXXIX.

FEBRUARY 20, 1915.

NOTES OF THE WEEK.

The Cornwall Daffodil Show.—After the Rev. J. Jacob's "Daffodil Notes" (page 88) had been sent to press he informed us that the Cornwall Daffodil Show has been abandoned for this year.

Captain Louis de Vilmorin in the Fighting Line.—The following extract from the French Official Journal of the 1st inst. will, we think, be of interest to horticulturists in this country:

"The 8th Section of machine gun cars under command of reserve Captain Louis de Vilmorin volunteered to operate on the first fighting line a battery of 80mm. mountain guns, and contributed very effectively to check the defence of a village by the Germans in supporting by night and day the forward movement of the infantry."

Tulips for Forcing.—Mr. R. P. Brotherston, the well-known Scottish gardener, sends us the following note: "The best forcing Tulip I have ever grown is Proserpine, which with no trouble commences to flower in the middle of December, and at Christmas there is always a good supply of plants and bloom. This year Fred Moore has been very satisfactory as an extra early variety. It is in the way of Prince of Austria and Thomas Moore, and a lovely flower. Of Daffodils I have had a large quantity of Seagull of my own growing, yielding lots of flower. The Flowering White Currant, cut and brought out in a stove, has been in use for decorating since early in the year. It is well worth growing for this purpose alone. The other forms do not force so readily."

Shirley Poppies with Blue Flowers.—

Last spring we were rather startled to receive from Messrs. J. Carter and Co. a packet of seeds labelled "Blue Shades of Shirley Poppy." These, the firm were careful to explain, had been raised by Mr. Luther Burbank, and were in sealed packets sent direct from the United States of America, so that Messrs. Carter could accept no responsibility for the colour description. When the plants that were raised commenced to flower, we were not greatly

impressed with the colour of the blossoms; but later, some gave very charming flowers, varying from smoke grey to slaty blue. These were exceedingly pretty for house decoration during daylight, but were not seen to advantage when artificial illumination was resorted to. As will be seen by the accompanying illustration, the flowers are the same in form and poise as those of ordinary colours.

A Beautiful Early Spring Crocus.—In *Crocus tommasinianus* we have one of the best of the early spring Crocuses. The outer petals are of a silvery dove tone, while the inner segments are of a delicate mauve blue, making it very attractive. It is, although small, stout in its habit, and stands the weather of an early period of the year with little distress. Even when not

by Mr. F. C. Miles on albinism in Maize being of special interest to horticulturists. The journal is edited by Professor W. Bateson, M.A., Director of the John Innes Horticultural Institution, and published by the Cambridge University Press, Fetter Lane, London, E.C.

Two Dwarf Uncommon Shrubs.—The genus *Sarcococca* is not very well known and seldom seen

in gardens, yet it contains several interesting little shrubs that are suitable for the rock garden. The two we have in mind are of recent introduction from China, and although in neither case are the flowers very conspicuous, they are interesting and very fragrant. As they open at this time of the year, they are worthy of a place. One is *Sarcococca humilis*, a neat little shrub from 1 foot to 1½ feet high, with rich green, glossy leaves, bearing racemes of whitish flowers, with clusters of conspicuous red stamens. The other is *S. ruscifolia*, a stronger grower, but very pleasing with its neat habit and dark polished leaves and clusters of white flowers. The flowers of *Sarcococca* are unisexual, but the two sexes are produced on the same axillary raceme, the females being at the base. The *Sarcococcas* belong to the Spurge family and are closely allied to the Box.

Journal of the Kew Guild.—This journal for 1915 is a particularly interesting one, containing as it does several articles and notes bearing directly upon the war. Thus the frontispiece is a portrait of M. Louis Gentil, an Old Kewite who is Curator of the Brussels Botanic Gardens and editor of the *Tribune Horticole*. The article by M. Val Bouckennooghe, entitled "The Bombardment of Ypres," places vividly before us the awful trials that horticulturists and other civilians have been subjected to in the bombardment of that and other Belgian towns. M. Bouckennooghe, who is also an Old Kewite, has been in business as a nurseryman at Ypres for some years, and is now a guest of friends in this country. Other articles deal with the work of Kew



SOME OF THE BLUE-FLOWERED SHIRLEY POPPIES.
THESE ARE VERY USEFUL FOR CUTTING

open to the sun it is pretty with its peculiar, attractive feathering showing on the flower.

Physiology of Fertilisation.—Those who are interested in the physiology of fertilisation in plants and animals will find the current issue of the *Journal of Genetics* particularly useful. The whole of the number is devoted to numerous experiments that have been conducted, those

men in all parts of the world, and form a striking testimony to the activity of horticulture in remote corners of the globe that owes its success to Kew. The editor of the journal and secretary of the Guild is our sub-editor, Mr. H. Cowley, who, as our readers are probably aware, is serving with the British Army in France. The work of editing the present issue has been undertaken by Mr. A. Osborn.

HOME-GROWN VEGETABLES AND OUR FOOD SUPPLY.

We continue to receive a number of letters on this important subject. Dr. Lillias Hamilton very properly indicates the necessity of growing those kinds of vegetables that are the most valuable from a food standpoint, and her suggestion of co-operative piggeries in connection with allotments deserves earnest consideration from local horticultural societies. The letter signed "F.R.H.S." is from one of the best-known men in the horticultural world, and we commend his suggestion regarding Wisley to the Council of the Royal Horticultural Society.

I THINK the advice given in your article of February 6 is excellent, being both timely and useful. The Royal Horticultural Society of Ireland have appointed a committee to form an Irish branch of the Vegetable Products Committee, established to supply garden produce to the North Sea Fleet. BESSBOROUGH.

I THINK I have as much sympathy for the wounded and suffering as any of your readers, but I do not see my way to throw up my hat in approval of the scheme you advocate for the supply of vegetables to our hospitals and Fleet. You must never forget that market gardening is a great industry, and if supplies of vegetables are required for our Fleet, let them be ordered through the proper channels, just as bread or beef or cheese is ordered. Why is it always the horticulturist who is expected to give things free? Why do we never see proposals for grocers to set aside six cheeses every week, or for farmers to give a sheep every week, or for bakers to give a batch of loaves every week, free, to feed our sailors? When we come to the hospitals it is rather different; but why free vegetables any more than free drugs or free milk and eggs? Again, I say the interests of the market gardeners are to be considered. By far the best thing to do is to encourage the increased growth of Potatoes and vegetables among the people themselves for their own and their children's food, and if there are surpluses, let them by all means be given away. Let all big people with large gardens and vineries run them as usual and give their produce to the hospitals, as is being done at present by some.

W. CUTHBERTSON.

[We think Mr. Cuthbertson has rather misunderstood the purport of our article. The idea is not so much the supplying of vegetables to our Navy or Army as to induce amateurs and cottagers to grow all the food they can during the coming season. Any surplus could be put to good use by a local society undertaking to collect and despatch it to hospitals, nursing homes or other institutions where wounded soldiers or sailors are being cared for. Mr. Cuthbertson must surely have heard of "pound days" at hospitals, where a pound of some kind of grocery is given for the inmates.—Ed.]

THE article on "Home-grown Vegetables and Our Food Supply," in your issue of February 6, raises an important question, and suggests, I think, a valuable policy. One or two special considerations occur to me.

In the first place, as regards the choice of vegetables to be put in the ground, it is to be hoped that the responsible committees will select, according to locality, such as are most nourishing and such as are easily stored. Both these considerations point to root crops, especially Potatoes, which are imported in such enormous quantities from Germany every year. There does not appear to be any shortage of green vegetables

at present, and the pressure on our supplies is likely to increase towards the autumn and during the winter months. If every garden holder in the kingdom put down even the smallest quantity of Potatoes, Carrots, Beets and other root crops, and also Onions, the result in six or eight months' time should be a considerable and valuable increase of foodstuffs for the nation.

Secondly, it seems to me that not only can the horticultural societies be utilised, as you suggest, as local advisory bodies and distributing agents—as local co-operative centres, in fact—but that these societies already form the nucleus of a national system of co-operation. Instead of each locality acting independently, the system of intercommunication among the different districts should tend to the regulation of supply and demand over the whole country, and ensure growing on the most useful lines and distribution to the best advantage.

Thirdly, you suggest the possibility of personal instruction. I feel this to be essential. Now, if ever, is the opportunity to increase the fertility and productiveness of the land. The weight of a crop varies so enormously according to the method of cultivation; hence the great importance of teaching the allotment holder the principles of intensive culture. We are all familiar with the sight of a small boy sweeping up road scrapings for the small garden; these and any leaf-mould that can be collected and dug into the soil at a considerable depth in the winter would produce very different crops from those we are accustomed to see. Another thing we have to learn is that large vegetables are not necessarily coarse. One has only to compare the mere look of a field crop of Parsnips or Carrots with those exhibited at the London and provincial shows. In the one case the root from crown to point is only 8 inches to 10 inches long; in the other, it may come to nearly 3 feet in length. A form of cultivation between these two extremes would not be impossible, and instruction as to how to achieve this result is a very great desideratum.

Finally, I should like to make a suggestion that has long been in my mind, and that is the possibility of starting co-operative piggeries. There seems no reason against, and every reason in favour of, having co-operative piggeries in connection with allotment gardens, as has been the custom in Belgium. Considering the enormous amount of green stuff—Cabbage stalks and the like, which are the inevitable refuse of allotments, combined with the remnants from the cottages of the holders, I think we should make a very real effort to produce the home-grown article, in view of the millions of pounds (sterling) worth of bacon annually imported.

In these, as in other directions, the present anxious time, while it emphasises the need, would seem also to suggest the opportunity of meeting that need.

LILLIAS HAMILTON (Warden).

Studley Horticultural and Agricultural College for Women.

You are rendering yeoman service to the nation by your article in your issue of the 6th inst. There is not much danger of there being a serious shortage of food in this country, but in view of the great armies at home and abroad, as well as the Navy (not to mention our wounded), huge demands for food must necessarily be made on us. The threat by the Germans to blockade our ports will cause us no alarm, but at the same time our food supply will not be increased as a result of submarine operations. It therefore behoves all not only to economise, but to see to it that every inch of land shall be made as fully productive as possible during the coming summer and autumn. Unfortunately, everybody does not read THE GARDEN, and the problem is how to get at those who fail to see your article. I suggest, therefore, that a copy of your article should be sent to all the leading London and provincial daily newspapers, and also to local papers, with a request for insertion. The expense of this would be lessened if one or other of the great news distributing agencies could be prevailed upon to render assistance in this direction, as I have no doubt it will do if a representation is made to it on patriotic grounds. Copies of the article might also with advantage be sent to local governing bodies which have to grow large crops for the inmates of workhouses, &c. In fact, every effort must be made to bring home to our people the necessity of growing all possible crops. The magnificent example set by the Dunfermline Horticultural Society is one which might well be followed by other societies. The Royal Horticultural Society is first and foremost in everything connected with the horticultural world. Could not the Council be induced to have all land available at Wisley planted with vegetables, and to have the same distributed to places where they are wanted? Large numbers of wounded soldiers are expected before long. These are to be centralised. I would therefore suggest that the Royal Horticultural Society should undertake to supply at least one hospital of wounded soldiers with vegetables. F.R.H.S.

I HAVE just seen the article in your admirable paper suggesting that local societies should take up the question of increasing our vegetable supplies. I may add that the Hayward's Heath and District Gardeners' Mutual Improvement Association is now trying to arrange for a lecture or debate on this subject at its meeting on March 3. I am wondering if any reader could assist me in obtaining a lecturer on this important work. I may point out that the Hayward's Heath Horticultural Society has resolved itself into a local branch for the purpose of collecting and packing fruit and vegetables for the Fleet, and sending to the head committee—the Vegetable Products Committee. I am sure that if something could be done so that the matter you are taking up could be forcibly put before the many head and single-handed gardeners, also cottagers, it would be successful.

G. PREVETT (Hon. Secretary).

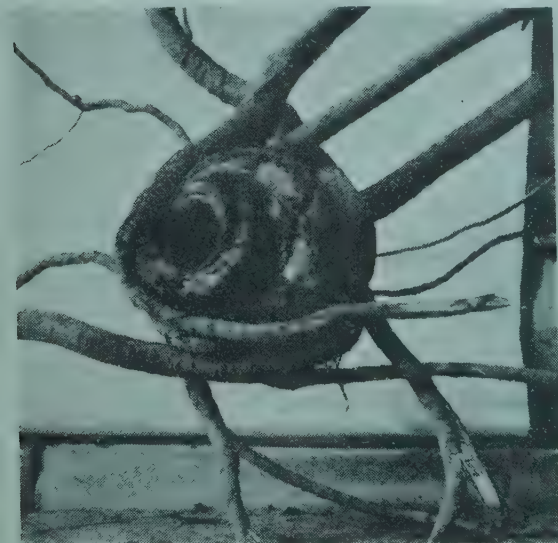
The Rosery, Hayward's Heath.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Danger of Planting Pot-Bound Plants.—

I enclose two photographs portraying in a somewhat striking manner an instance of a disastrous result of planting a pot-bound plant. Photograph No. 1



1.—ROOTS OF A POT-BOUND PITTOSPORUM COLENZOI FIVE YEARS AFTER PLANTING.

shows how the roots have followed the concentricity given to them by the shape of the pot, until by persistent constriction they have so strangled the main stem (as shown in No. 2) that it has only required an extra puff of wind to cause complete severance. The plant is Pittosporum Colensoi, and was planted five years ago. It was a fine specimen for its age, having attained the height of 12 feet.—ALEX. M. WILSON.

Iris Tauri.—This handsome Juno Iris is well known to most hardy plantsmen, and is now in abundant flower here. Although it increases fairly well from offsets if given good treatment, seedlings raised in this country seem to make the strongest bulbs. It is, however, only once in a while that I. Tauri will seed in our climate, as its period of flowering is so early that there are few insects then about. A springtime characterised by a warm and sunny February will, as a rule, prove the forerunner of a plentiful quantity of seed on this and other allied varieties of the Iris group, and it is well worth while to take the pains to watch, gather and sow it, even though one must not expect flowers from the seedlings for at least four years. Such, at any rate, is my experience.—F. H. CHAPMAN, Rye.

Cultivation of Tropæolum speciosum.—I was interested in Mr. R. A. Earp's article on Tropæolum speciosum which appeared in the issue of THE GARDEN dated February 6, page 68, in which he says his friend informed him that it would only grow in Cornwall and the Highlands. Well, I think she was a great way out in so sweeping a statement, for I have seen it grown, perhaps not to perfection, but as near that condition as to matter but little. This was in Wigtownshire, Scotland, and but a few feet above sea-level. There it covered not only the railings which were intended for its support, but also Rhododendrons and various other evergreens, some of which were quite a distance from where I should imagine it had originally been planted. I do not know

whether Mr. Day, when he was a contributor to your columns, mentioned it or not, but I can assure you the masses of flame colour during the summer were quite a feature of the place. This was at Galloway House, Garlieston, Wigtownshire.

—CHARLES TROTT.

—Tropæolum speciosum, known here as Flame Flower or Scottish Creeper, is very largely grown in the Lake District, where we consider that it requires the kind of deep, rich soil which grows good Pansies. It likes a north or north-west position, as a rule, and prefers a living support to wire or string, though well-established plants will cling to anything provided. A more beautiful picture cannot be imagined than a sheet of the vivid scarlet flowers and light green leaves growing over an old Yew hedge. Flame Flower is rather capricious, and sometimes takes several seasons to become established. It has a curious habit, if its tastes are not provided for, of growing horizontally underground until a more congenial home is found. I have known plants which were set at one side of a hut to grow underneath the hut and appear above the ground at the opposite side, where they flourished exceedingly. When once settled, it will sometimes spread almost as rapidly as Convolvulus, and I have even heard it described as a weed.—SPINK, Carlisle, North Lancs.

Daffodils for the Garden.—I must thank "A Small Amateur," the Rev. J. Jacob and Mr. G. L. Wilson for their kind replies to my letter. I am specially grateful for the lists of Daffodils recommended by the first two as suitable for the ordinary garden, because, as I said in my first letter, catalogues are not much help to a novice searching for sorts likely to thrive in the garden. Even "X. and Sons'" famous catalogue, which has different marks for those sorts recommended for exhibition and those for the border, goes on to say about those marked as suitable for exhibition, "they are, however, in most cases also splendid border varieties," so that one does not get much "forarder." I see from the "Daffodil Year Book" of 1914 that the Narcissus committee of the Royal Horticultural Society recommend the following for the garden: Mme. de Graaff, Barrii conspicuus, Emperor, Sir Watkin, Empress, Lady Margaret Boscawen, Lucifer, White Lady, Weardale Perfection, Horace, Argent, Cassandra, Blackwell, Duke of Bedford, Seagull, Gloria Mundi, Golden Spur, Homespun, King Alfred and Poeticus recurvus. A novice looking at such a list would, I think, be justified in considering that as regards vigour of constitution and suitability for the garden all these twenty were much of a muchness. I am afraid, however, his faith in the judgment of those who sit in the seats of the mighty in the Daffodil world would be rather shaken when he sees in THE GARDEN of January 30 the superdaffodilist, the Rev. J. Jacob, state in reply to "poor 'J. R.' from the cold North" that Homespun and King Alfred are not "good garden plants in the way that Emperor and Barrii conspicuus are." Of course, this list is a first attempt. No doubt, as years roll on, it will be revised and expanded, and should prove of the utmost value.—J. R.

Shows, Schedules and Judges.—Mr. George Garner, in your issue of January 30, bears me out that the wording of schedules is too often ambiguous, and also admits that judges are not always what an exhibitor has a right to expect—competent. He thinks I am "rather hard on committees in reference to trade exhibitors," but that I "may have evidence of importance" to bear me out.

Yes, Sir, heaps of it. I am glad that Mr. Garner realises the value of trade exhibits, for undoubtedly in very many instances they form by far the biggest attraction in the tents at practically very little cost to the committee; but how often do we find that, instead of assisting the trade exhibitor, he is left till last, because "We must get Lord So-and-so's gardener to the station." That may be good policy; but it frequently happens that the trade exhibitor is due at another show next day, and a lengthy delay may upset his arrangements and not only prove a loss to him, but also to the committee who are expecting him to fill the space allotted. With regard to evidence to bear out my strictures, I will mention one or two instances out of many. For one show definite arrangements had been made as to time of arrival, &c. After a wait of two hours a conveyance arrived, and on reaching the show ground all the officials had left, the tents were in complete darkness, and the man in charge had no instructions and did not know which tent. In another case, after a wait of an hour and a half at the station, a small conveyance arrived (the only one employed) which could only take a portion of the exhibit, thus necessitating a second journey of nearly five miles. In many cases the trader—from necessity—arrives late in the evening. No information can be given him by the show officials as to lodgings, and frequently he—or they—have to spend the night in the tents. Another item prejudicial to trade exhibitors is that while they go, naturally, for "trade" at many shows, patrons and subscribers get a private view and are gone before the exhibitor is admitted. These are the people who would be most likely to do business; but the trader is precluded from getting it because he has not been admitted, and his cards cannot be exhibited until judging is completed and he is admitted. Where the exhibit is not in competition for money prizes, the exhibitor should be allowed to be at his post. I, with others, have frequently had to stay in a town an extra night because of delay in getting conveyances to reach the station in time, the private exhibitor being the first to get attention. Again, it is often found that on arrival at a show, the staging is not fixed, and much valuable time is lost. I do not



2.—SHOWING HOW THE MAIN STEM WAS STRANGLED.

plead for extra special consideration for the trade exhibitor, but many things might be improved to the comfort of the exhibitor and the advantage of the show. I would also commend "Scot Exhibitor's" remarks to show committees. It would be quite easy for a list of suitable lodgings to be kept by the secretary, and it would be much appreciated by exhibitors.—EXHIBITOR

LILACS AND THEIR CULTIVATION.

THERE are few flowering shrubs that appeal more strongly to those who appreciate fragrant blossoms and graceful contour than the Lilacs, yet it is safe to assert that in the majority of gardens they are the most neglected shrubs that one finds. Too often they are wedged between more or less solid blocks of coarse-growing

is essential, and if the soil is naturally wet this must be provided.

Lilacs on Their Own Roots.—Unfortunately, a great many of the best garden varieties are grafted or budded on the common Lilac, which always has a tendency to throw up suckers. Often these pass unnoticed until they have attained large dimensions and have ruined the choice variety that they should in the ordinary way have fostered. Some nurserymen supply these good varieties on their own roots, and it is well to secure these wherever possible; then the

are usually taken to the conservatory, where the atmospheric conditions are drier and the temperature lower; here they will remain in good condition for several weeks.

The Best Varieties.—There are a good many excellent garden varieties to select from, a number of them differing very slightly. The following are good and reliable for ordinary purposes: Single, white flowered—alba grandiflora, Marie Legraye, Mlle. Fernande Viger and Frau Bertha Dammann. Single-flowered coloured varieties—

Negro, deep purple; Othello, deep claret red; Dr. Mirabel, very erect panicles, deep claret red in bud, opening to rich purple; Gloire de la Rochelle, deep lilac blue; Pasteur, wine red; Philemon, dark red; Mme. F. Morel, large panicles of deep purple colour; Souvenir de Louis Späth and Charles X., deep red. Double flowers—Marie Lemoine, Miss Ellen Willmott and Mme. Abel Chatenay, white; Condercet, large panicles of lilac blue shade; President Grévy, blue flowers, edged rose; Maurice de Vilmorin, deep claret red; Dr. Troyanosky, very large panicles of azure blue flowers, which are rosy pink in the bud stage; Comte de Kerchove, rich rosy red, very free flowering; and La Tour d'Auvergne, violet purple. H.

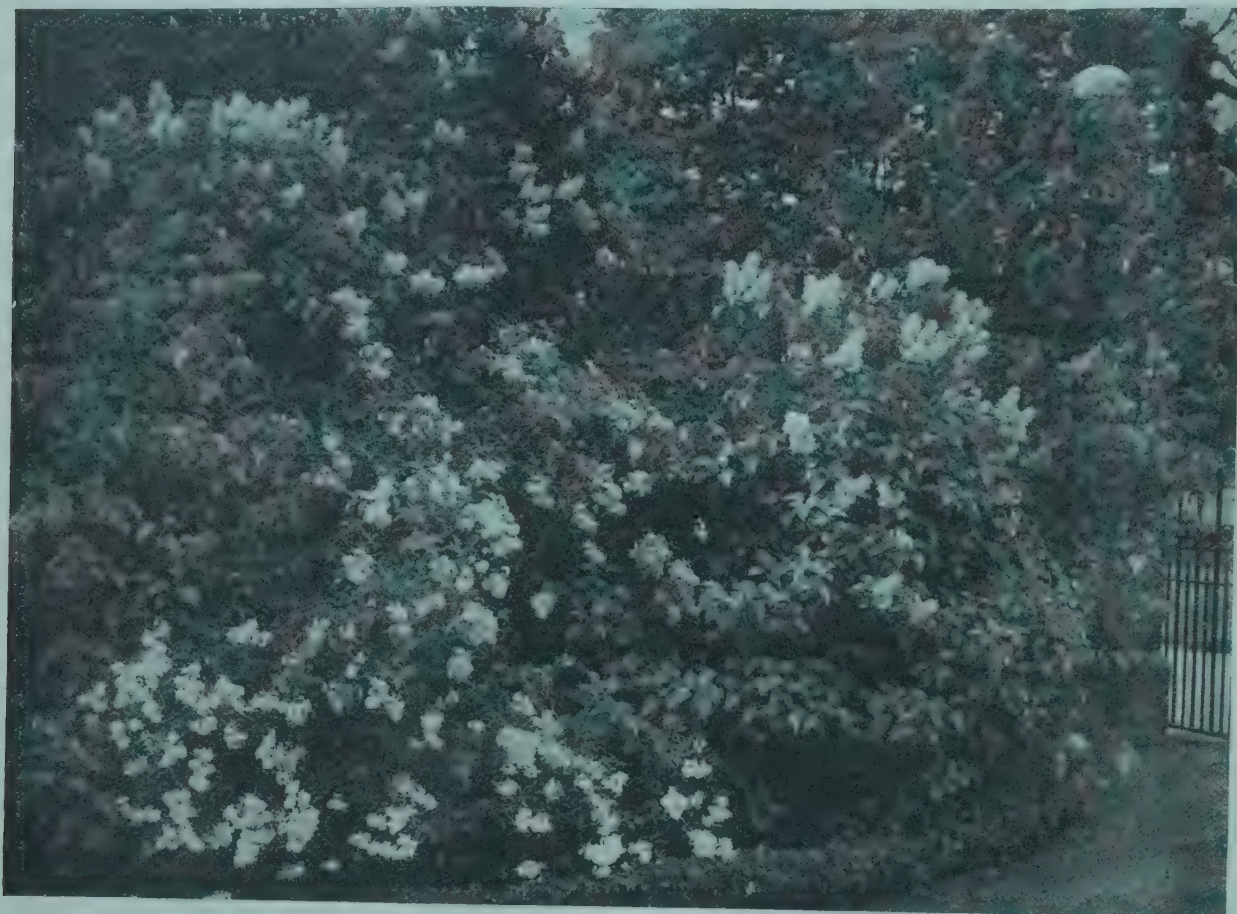
DAFFODIL NOTES.

Shows and Their Dates.

The florist division of the Daffodil world is, naturally, thinking about the coming shows and wondering if they will all take place as usual. Through the courtesy and kind help of the several secretaries I am enabled to make a statement. The following exhibitions are definitely abandoned: Devon, Glamorganshire, Brecon, Huntingdonshire, Ipswich

and East of England, and Kingsbridge. At the time of writing (early February), the following is a list of the dates, names and venues of those that it is proposed to hold: April 13 and 14, Royal Horticultural Society, at Vincent Square; April 14, Herefordshire, at Hereford; April 14 and 15, Royal Horticultural Society of Ireland, at Ballis Bridge, Dublin; April 15, County Clare, at Ennis; April 15, Tewkesbury, at Tewkesbury; April 20, Lincolnshire, at Spilsby; April 21 and 22, Midland, at Birmingham; and April 24, Presteign, at Presteign. I have no news about the Kent, Surrey and Sussex show, and it is not settled yet about Cornwall. These gaps are unavoidable. Our country comes before our Daffodils. While it is a sign of patriotism to do all we can to carry on as usual, it is not always possible, and changes have to be made. I sincerely hope no untoward event will necessitate an abandonment of any of the above fixtures.

Fanny Currey.—Miss Currey was for so long a popular figure at London and Birmingham that I am sure some news of her in her enforced retirement will be welcome to many. The Warren Gardens at Lismore are entirely given up, and Miss O'Hara, her friend and companion, writes: "I am sorry not to be able to report



AN EFFECTIVE GROUPING OF LILACS AND OTHER HARDY SHRUBS.

evergreens, where it is impossible for them to properly ripen their wood each autumn and so ensure a bountiful display of blossom the following May. A valuable object-lesson in the proper planting of Lilacs may be seen any day of the year at Kew. In one instance a very large bed near the main gate is devoted to these charming shrubs, the varieties being so grouped as to give an excellent harmony of colours. Under the Lilacs, Winter Aconites and other very early flowering bulbs are planted, to provide a carpet of green and gold at a time when the Lilac bushes are devoid of foliage. At Bletchley Park, Bucks, Lilacs are freely dispersed among other shrubs by the side of the walks and carriage drives. The effect in May is most pleasing, especially where the Persian Lilac and Golden Chain or Laburnum are flowering together. There is surely no justification for the half-starved and overcrowded bushes that do duty in many gardens.

After all, Lilacs do not call for a great deal of special attention. True, they need deeply cultivated soil and a fairly liberal diet, and for this reason the ground should be well trenched and manured thoroughly with decayed manure before planting is done. The planting season extends from October till March. Good drainage

suckers, or a proportion of them, may be desirable rather than otherwise. But even here there is some danger, especially as the bushes attain a fairly large size. If too many of the suckers or basal shoots are allowed to remain, the plants are likely to get overcrowded, a state of affairs that must be strictly guarded against. In growing Lilacs we must fully bear in mind the fact that if we desire good flowers, the wood must be well ripened by exposure to light and air the previous autumn. Apart, however, from a thinning out of weak, useless shoots, and the removal of the flower-heads when the blossoms have faded, Lilacs do not need much pruning.

Their Value for Forcing.—During recent years quite a big industry has been brought into being, in France as well as at home, in forcing Lilacs into bloom from January until April. The plants used for this purpose are generally gaunt-looking specimens with a few very strong shoots, this condition having been brought about by severe disbudding for two or three years previously. As the plants are in pots they are easily managed, and are by no means difficult to force into bloom. They are gradually inured to a temperature of 65° Fahr., and lightly syringed overhead daily to assist the buds to burst. When in flower they

much improvement in her, though her health continues fairly good."

Honour for the Daffodil.—A Welsh Chancellor of the Exchequer has evidently solved to his own satisfaction the knotty problem of what is the national floral emblem of Wales. It used to be taken for granted that it was the Leek, but latterly that seemingly obvious fact has been challenged and a claim set up for the yellow Daffodil. The Chancellor seems to have decided the question, and who knows but that his decision will be, as it were, the making of the flower, so that in future we will have to say the Rose for England, the Thistle for Scotland, the Shamrock for Ireland, and the Daffodil for Wales. Readers may be asking themselves, "How do I know?" and "Why do I write of the Chancellor's decision?" A little episode that happened this week will make my meaning plain. My gardener having to go into Whitchurch on business, I asked him to call at the bank and get one of the new one pound notes with a Daffodil on. In due course he went to the bank, presented my cheque and asked for one of the new notes with a Daffodil on it. "Very sorry," said the cashier, "we have none. We'll have to get some made!" and forthwith, with profuse apologies, he gave him one of the new issue. The note was brought home, and I was told that it was the only kind they had at the bank, but that there was no Daffodil upon it! Visions of the bank innocents having been taken in by a wholesale forgery instantly rose up in my mind, but when I looked at the note the Daffodil was there all right. Problem: Find the Daffodil on a new one pound note. You, good reader, may not know it is there, and that our pet flower figures proudly on the official currency of Great Britain. It is the first time that Wales has been represented on it.

The Royal Horticultural Society's Classified List of Daffodil Names, 1914.—I have before me the first list that was issued by the Royal Horticultural Society in 1907. In round figures it contained 1,500 names. I have counted the number in that of 1914. Roughly speaking, there are 3,000, to which must be added the additions which the secretary of the Narcissus committee must have in his desk. But over and above all these there are all the Australian and New Zealand varieties, few of which seem to be registered, and then there is that vast multitude which "no man can number," all potentially crying out (to alter one word in a *great* song):

"We are coming, we are coming,
As our Fathers did of yore!
We are coming, Father Curtis,
Six hundred thousand more!"*

Yes; this *is* poetic licence, but the idea is all right. There are on their way to fame or the other thing far more new and unnamed varieties than anyone realises. I have an enormous number myself; Dr. Lower is only just starting; Mr. G. L. Wilson (Ireland) is in much the same position;

* The chorus of the famous recruiting song of the Northern States of America.

Mr. James Coey, I presume, is not letting the grass grow under his feet; Mr. England of Exeter must have something "good" in the making; Mr. Mallender and his co-worker, Mr. G. Stocks, are also on the warpath; Mr. Carne Ross and Captain Kitchen are probably not idle.

This is bewildering enough, but what of those "coming on" in the great dominions of New Zealand and Australia! Not the children of Lowe, Rhodes, Bradley, West, Selkirk, Buckland, Thomas and other well-known raisers, but those of the, comparatively speaking, unknown—of, let us say, Mr. H. E. Sharp of Oratia, New Zealand who grows 1,125 named varieties and who has been busy hybridising since 1906, yearly importing some of the best blood from the Old Country and Holland to keep himself up to date. By the way, he writes of Mauger's l'Avenir (1c) as one of the very best of market flowers, and that Victoria has stems 18 inches long! He did well last September at the Auckland Show. Then, to go to Australia, there is Mr. C. W. Higgins, a nephew of the great Higgins whose list for 1913-14 fairly staggered me by its expensive inclusiveness. He and his father and brother are enthusiasts, and busy as bees at the game of seedling raising,

SOME CULTURAL HINTS ON FREESIAS.

AS one whose business it is to handle a considerable number of bulbs, I have often been surprised at the comparatively small number of Freesias sold during the season. Why is this? The flowers open without much trouble, and no great heat is required; they come at a time when flowers are very scarce and much appreciated; no flower is more suitable for cutting; while the scent is most delightful, and remains fresh until the flower is almost dead. Having asked a question, I will endeavour to answer it. My belief is that the greater number of people who try to grow this beautiful flower grow it so badly that they give up in disgust. There seems to be no other logical reason why it is not more extensively grown.

The Reasons for Failure.—Let us now look for the probable cause of failure. First and foremost, I would say that late potting is more to blame for failures than anything else. The bulbs of this plant ripen very early, and if kept out of the soil long they lose much of their vitality,



LILACS FLOWERING BESIDE A CARRIAGE DRIVE IN THE GARDENS AT BLETCHLEY PARK, BUCKS.

inspired as they well may be by such men as Buckland, Bradley and Selkirk. I have had a long and interesting letter from "C. W.," in which he narrates his experiences of seed and pollen parents. It illustrates in a very striking way the old adage put into Daffodil language, "What's one variety's climate is another's poison."

Number of Seeds in a Pod.—I wonder what is the record number of seeds in a pod. Mr. Higgins' father once had a King Alfred \times calathinus with sixty in, and last year (1913-14) an Albatross \times Treasure Trove with fifty-two. My own biggest appears to be a Sidney \times Daybreak (Tazetta) with fifty-three. These little records are interesting.

JOSEPH JACOB.

and will never do themselves justice. Not once nor twice, but many times have I had experiments made in potting Freesias as soon as they arrive from France, which is generally about the last week in July, and others in a month or ten weeks' time. In nearly every case the early potted ones have done excellently, while those potted later have been so poor that they really have not paid for the trouble of planting, and one can easily imagine an amateur, on looking at such poor results, saying, "What a poor show. I will never trouble with those things again!" Let early potting, then, be the watchword. Now as to

Soil and Treatment. To flower Freesias well a good, sound soil is a necessity, for, unlike

Hyacinths, Daffodils, &c., the bloom is not produced on the bulb you buy, but on a new bulb which is produced from the old one. It will be seen, then, that this flower requires more real *growing* than does a Daffodil bloom, which is already formed within the bulb and only needs enticing out. Our Freesias are always potted in Kettering loam, to which is added a little Cocoanut fibre and sand to keep it open. After potting—about twelve bulbs are put in a 6-inch pot—they receive a gentle watering and are plunged in a cold frame and covered with about half an inch of fibre. Many growers are against any covering, but I have found that a light one keeps the soil moist and does no harm. A deep covering is harmful, as it draws up the young leaves and makes them weak.

Unless heavy rain occurs, the lights are left off the frame until cold nights come on, when a covering is necessary, but air must be given freely whenever the weather is fit.

The Growing Plants.—As soon as all the bulbs have made a start, it is well to remove the

been made, very little water should be given, but when in full growth they require a fair quantity. Treated on these lines our Freesias are always a success, though the ripening seasons of the bulbs will give better results in one year than another. Last year must have been very favourable for them, for we are now enjoying a record crop of bloom. Hardly a bulb has failed, and the pots have been full of strong, sturdy growths bearing double and even treble trusses of full-sized blooms. Before any were cut the plants were bristling with buds, and I said to our grower, "Now if amateurs once had a crop of Freesias like that, they would never be without them again."

Freesias are really very cheap to buy if—and it is a large "if"—they are grown as they should be; but if potted late and badly grown they are not worth pot or greenhouse room. To my mind the Freesia is far and away cheaper in proportion to the bloom it produces than the Roman Hyacinth, which, by the way, has of late steadily increased in price and decreased in quality, partly owing to the huge demand for the bulbs, which

stems or leaves, surmounted in the summer by myriads of blue flowers. These often open in May, and the display is continued sometimes until well into August. As its old specific name implies, it is a useful plant for old walls, but it is also excellent for planting in the interstices of stone pathways, while it is equally at home in a sunny spot in the rock garden or as a pot plant in the conservatory. Good loam that is fairly retentive of moisture suits this charming little plant. T. G.

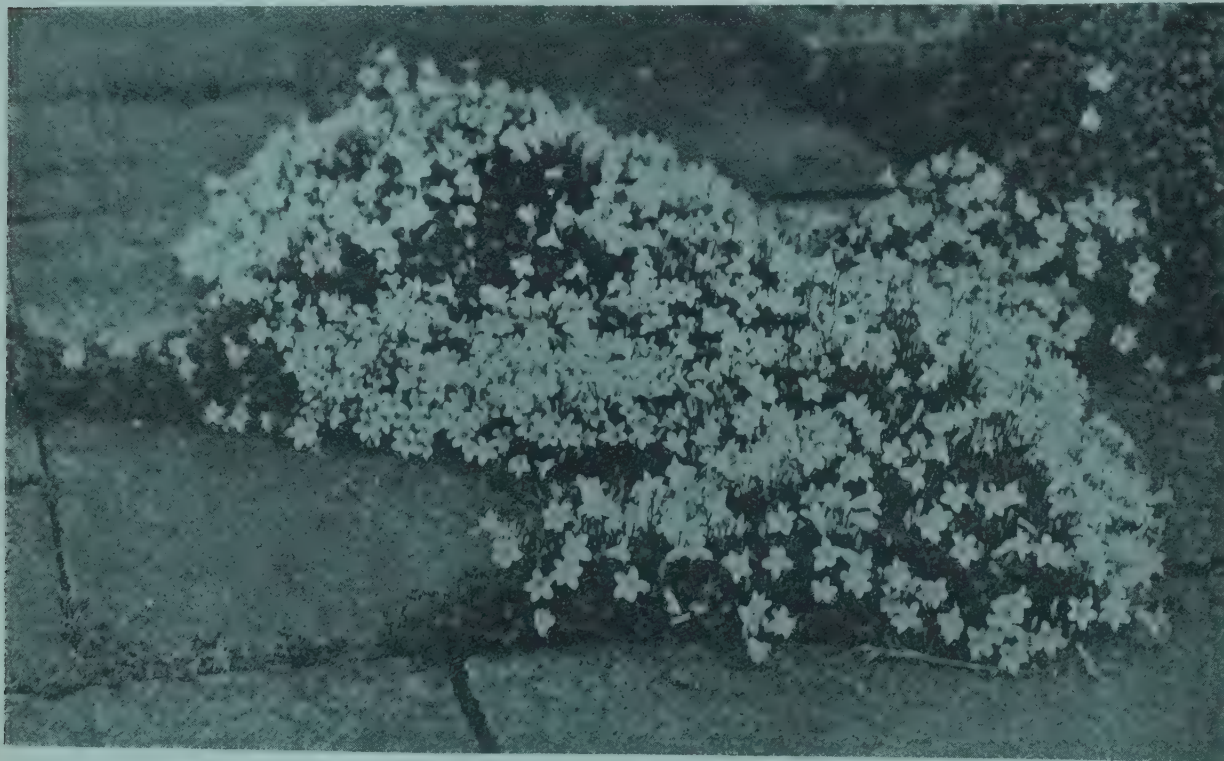
WINTER GRIME IN LONDON SQUARES.

TO eyes unaccustomed to London grime and smoke, the blackness of the square gardens and also of the parks is very surprising, and when one hears of the wonderful gardening and the sums of money said to be lavished on them, I really think somebody must be rather to blame. Surely there are other good green shrubs for winter besides the ubiquitous Aucuba and Euonymus! Privet decidedly declines to come under the category of anything that is green in the winter. Hollies may be meritorious, but they are positively black at this season, so the aspect of both squares and parks is dismal and depressing to a degree. All who are unaccustomed to such surroundings feel that some effort should be made to combat this unsightly squalor, and I sincerely hope the London gardening ædiles will give some little attention to the cheering and brightening up of the winter parks and squares.

There is no need to go very far afield for wondrous novelties which might or might not answer in such dismal days as those endured last January. We have such cheerful and hardy things as the bright green *Griselinia littoralis*, so useful and hardy in smoky places in Yorkshire, where frost is not as severe as in the country. *Olearia Traversii* grows, perhaps, rather tall and tree-like, but *O. Fosteri*, bright green, would surely surprise the eye of the passerby. The well-known *O. Haastii* seems all but unknown here,

though it is of unimpeachable hardiness and vigour under smoky conditions. No doubt it flowers too late for the London seasoners, and its faded brown flower-heads are rather unsightly in the autumn; but even this is far superior to the average "square" shrub, and stands both pruning, drought and digging with sturdy cheerfulness.

But for winter massing there is one old plant of surpassing beauty which may be seen at the foot of the Serpentine, towards the top of the Dell, that surely should give a hint of what might be done. *Acanthus mollis* is the plant I mean, whose splendid foliage and rich green tone redeems that corner from the dreary uniform of blacks and dark, sooty tones that reign generally. No doubt the plant dies down in August and is then unsightly (it must not be confused with the smaller and more prickly *Acanthus*, which is then in beauty, but dies down in the winter), but with the first autumn rains it pushes up strong and green, rich and beautiful, as if it were spring



THE WALL BELLFLOWER, *CAMPANULA PORTENSCHLAGIANA*, GROWING BETWEEN FLAG-STONES.

fibre from the surface of the pot, and sticks must be put to the plants in good time to prevent them from tumbling about. Three or four very thin sticks—Bamboo tips are the best—should be put round the edge of each pot, and some very fine raffia laced round from one to another to form a kind of enclosure for the plants. Thick sticks and thick tying material look clumsy and unsightly. As soon as the nights get really cold and the plants stop growing, they should at once be removed into a cool greenhouse. (Ours are taken inside about November 1.) Otherwise the tips of the leaves will go brown and the general results will not be the best.

In the Greenhouse they should have a position as close to the glass as possible. The temperature should be only just enough to keep them going, say, a maximum of 55° by day and a minimum of 45° at night. As much air should be given as is possible without causing a chilly draught. I had forgotten to say that until some growth has

puts too great a drain upon the stocks grown, and partly owing to a number of very inclement seasons in the South of France, where they are grown.

I trust that my remarks may induce some amateurs, who have tried and failed, to give the Freesia another chance, and if the results are as good as I have enjoyed this year, I feel sure they will have a word of thanks, even if not verbally expressed.

J. DUNCAN PEARSON.

The Nurseries, Lowdham, Notts.

THE WALL BELLFLOWER.

THE Campanula or Bellflower in the accompanying illustration is one of the hardiest and most easily grown of all the dwarf section, yet it is at the same time a very charming and useful plant. Its modern name is *C. portenschlagiana*, though it is probably better known in gardens under its old cognomen of *C. muralis*. As will be seen, the plant makes a large, spreading tuft of green

and in London at least is a plant of the greatest value. Having spent many hours in vainly trying to eradicate this lovely but too overpowering plant in Southern gardens, I am all the more anxious to atone for my persecution by praising it in Northern counties, where its seedlings do not come up ubiquitously and where its beauty of form and colouring is so precious in the winter. Just fancy the effect if Portman Square or St. James' Square had bold clumps of this foliage near the railings in place of a Lilac or Privet bush, and how greatly the dreary, stiff beds of bulbs in the Park would be improved if they had a few bold groups of such foliage on the grass.

A few plants of the good old Siberian Saxifrages (Megaseas) would always be green and effective; yet where do you see them? All the money seems spent on things that need replacing, rather than on making green settings for a few cheerful spring flowers when spring does venture to come North, and it is high time a protest should be made.

EDWARD H. WOODALL

LILIUM AURATUM IN SCOTLAND AND JAPAN.

AMONG the uniformly charming and illuminating articles in your columns on "Some Hardy Lilies," by Sir Herbert Maxwell, the account of *L. auratum* stands out with peculiar fascination for myself, because it recalls some cherished memories of what he justly terms "the most gorgeous of all flowers hardy in the climate of the British Isles." To begin with, let me say that what I have seen entirely confirms Sir Herbert's views on such points as the suitability of peat and of the humid atmosphere and cool soil of the West Coast, and that the presence of tree roots in the soil is no detriment.

The grandest display of *L. auratum* I ever saw in this country—and it continued for a number of years—was at Torridon House, on the Inner Loch Torridon on the West Coast of Ross-shire. My friend the late Mr. Duncan Darroch of Torridon and Gourrock, though by no means posing as a horticulturist, made *L. auratum* a hobby. When in London in the winter, he would personally attend the early morning sales of newly arrived bulbs and secure the largest of them at comparatively small prices. I think it was in the early eighties that he commenced a long series of annual purchases of these bulbs. Torridon House stands at the top of a plateau sloping gently to the seashore, and bounded on the west by a rushing, rocky stream spanned by a footbridge that leads to the enclosed gardens. Above the footbridge, at the top of the river bank opposite

the house, a level strip of peaty land some 50 yards or 60 yards long by, perhaps, 15 yards or 20 yards wide, was surrounded by a deer and rabbit proof fence, was trenched, and was planted with a few *Rhododendrons*.

In all parts of this peaty plot, sometimes in rows, sometimes in clumps, the bulbs of *L. auratum* found a congenial home. They flourished exceedingly. Every year there was a profusion of magnificent flowers. I have seen many tall flowering stalks ranging up to 10 feet in height. The taller ones were always carefully measured and the measurements recorded. They were covered with the splendid gold-striped

early flowering strain of *auratum* would make a handsome fortune. The last time I saw the Torridon Lily garden was in 1897. Some years later Mr. Darroch told me that his *auratums* had ceased to flourish; he knew not why. Doubtless he might have said, "An enemy hath done this!" That enemy Sir Herbert Maxwell would have boldly tackled and expelled.

It was in July, 1899, that I first saw *L. auratum* at home. I was staying at Gochi, a seaside resort near the Treaty Port of Naoetsu, on the north side of the main island of Japan, facing the Sea of Japan, and with a view of the Island of Sado, where there is gold. Driven hurriedly home from a ramble

on the shore by a thunderstorm with tropical rain, I was passing along a new military road when I saw at the top of the bank of a cutting what looked like a dragged flower-stalk of *auratum*. A spur of the central range of volcanic mountains here runs out towards the sea, the lower shoulders and slopes clothed with forest, where charcoal-burning is extensively pursued. Next day I wended my way to the beginning of that cutting. The cottage of a charcoal-burner by the roadside had, I remember, a row of fine Balsams in its little garden. Close by, a path entered the forest. I followed it a few yards, and lo! there was *L. auratum* in all its glory. Everywhere, amid the thickest trees and densest undergrowth, as well as in places where lovely glades opened out in the forest, even among rocks and by the sides of rivulets, our golden Lily in countless multitude reared its gorgeous flowers.

There were other flowers in that beautiful forest, such as brilliant Tiger Lilies and tall blue Campanulas, but they seemed of small account. In subsequent years I have often seen *L. auratum* growing even more luxuriantly and abundantly in other parts of Japan, mostly on hillsides; but I never again enjoyed it quite so much as on that first introduction. The individual blooms were of large size, but there were few on a stalk.

J. H. D.



PAPAVER ORIENTALE LADY FREDERICK MOORE, A CHARMING NEW ORIENTAL POPPY OF SALMON-PINK COLOUR.

flowers. I have counted 200 flowers on a single stalk. Mr. Darroch told me that he had no special system of cultivation, but I believe the Lilies got a top-dressing in the winter. He said the bulbs always did best in the third year, and after that went back. The *Rhododendrons* seemed to have no bad effect. Early frosts are not usual on the West Coast, but many of the *auratums* never opened their flowers unless they were cut and taken indoors.

Another Ross-shire Lily-lover, the late Sir Kenneth Mackenzie of Gairloch, used to say that any gardener who could produce an

A NEW ORIENTAL POPPY.

The flowers illustrated on this page represent a beautiful new variety of *Papaver orientale* named Lady Frederick Moore. When shown before the floral committee of the Royal Horticultural Society in June last year, this charming hardy flower received an award of merit. The blossoms are very large, measuring as much as seven inches in diameter, and the colour is a delightful soft shade of clear salmon pink. As will be seen in the illustration, each petal has at its base a large conspicuous blotch of maroon. The stems are erect and stiff, hence it should prove an excellent variety for cutting. It was raised by Mr. Amos Perry, Hardy Plant Farm, Enfield, to whom we are indebted for the introduction of many good new hardy plants

THE BEST WHITE SWEET PEAS.

THERE is no section of Sweet Peas causing so much discussion as those with white flowers. The trade growers, as well as amateurs, are undecided as to the variety that is to lead this year. From a garden point of view and for the cut-flower trade Nora Unwin (Special Stock) stands first. This selection is distinct from the original stock, both in wings and keel; the standard is perfect. The flowers of this variety make a first-rate market bunch, and travel and stand well.

Some of the leading amateur growers in the North are growing King White and Edna May; the champions of the South are strong on Constance Hinton and King White. In my notes made last year at several trade trials that I had the pleasure

Florence Wright, Moneymaker, Norvic and Stanley Crisp, all with white seeds; and Constance Hinton, Mrs. Sankey Spencer and Havant White, with black seeds. These are all to be planted out in April for comparison. I hope to have the pleasure of inspecting them when in bloom. Here is what we want in an ideal white: Substance of Dorothy Eckford, form and size of King White, on Moneymaker stems.

T. B. L.

THE FUNGOID DISEASE OF SNOWDROPS.

READERS who are fond of the Snowdrop will do well to look through their plants of this exquisite flower to observe if any of them are affected by the fungoid disease peculiar to the Fair Maids of February, viz., *Botrytis galanthina*. It

is specially objectionable in collections comprising

Unaffected bulbs, which may even have been quite close to those attacked and are lifted at the same time, may be dipped in a weak solution of Condry's Fluid and replanted. I have also dusted them with flowers of sulphur before replanting, but the fluid is probably the safer, as more likely to prevent the disease from acquiring a foothold. I also dust the soil about the plants with sulphur.

The origin of this disease in gardens is obscure, but I have observed that it is more likely to appear in changeable weather than in that which is dry and settled. Frequent alternations of frost, snow, sleet and rain, with mild, sunny intervals, appear to be specially dangerous. It appears to make no difference whether the Snowdrops are on bare ground or in grass, and I can recollect finding this *Botrytis* very prevalent among plants which were in thousands in grass under trees, and which had been established and naturalised for many years. These were common single Snowdrops. The disease must be sporadic or of modern date, otherwise the Snowdrops would have been much fewer than they were there.

Dr. M. C. Cooke stated that this disease was first observed in 1873, and that it "threatened to be very destructive in the North," but "has never given much trouble in the South." The late Mr. James Allen of Shepton Mallet, who raised so many choice Snowdrops, informed me, however, from time to time that he had lost many Snowdrops from this pest.

In my former garden in this county (Kirkcudbright) *Botrytis galanthina* appeared at intervals, and gave me a good deal of trouble, seeming to be specially virulent with such Snowdrops as *Galanthus Ikariae* and *G. byzantinus*. In my present garden, which is more exposed, I have never seen it during the ten years or so I have had this house, although I removed as many of my Snowdrops as I could, and would have expected that the *Botrytis* might have been transferred with the bulbs. I am always living in fear of its appearance.

S. ARNOTT.

Maxwelltown, Dumfries.



ROSE ELECTRA PLANTED IN A LARGE BED AND RAMBLING OVER ROUGH SUPPORTS.

of inspecting, I have Nora Unwin as the best garden variety and King White for exhibition. The latter has quite a distinct form of standard, broad and erect, pure white, and produces nearly all fours on a stem. Between Florence Wright and Edna May there was little difference. They are certainly better than most stocks of Etta Dyke, which has had a good run, yet there are some stocks that have been carefully grown and handled which are almost, if not quite, as good as the newer sorts. Moneymaker is without a doubt the longest-stemmed variety we have; it comes mixed in type only. Constance Hinton is a black-seeded variety. There is little, if any, difference between this and Mrs. Sankey Spencer, introduced in 1909. I have no hope of a black-seeded white topping the list as a pure white.

The other day I had the pleasure of inspecting an interesting set of trials. The whites included Etta Dyke, Nora Unwin, King White, Edna May,

rare species or varieties, seeing that they are usually in small numbers and can least be spared. The presence of the disease is noticeable from the time the plants appear above ground, when the development of the leaves and flowers is checked and the whole appearance disfigured. A white or greyish mould begins to appear about the neck of the plant, and, if left alone, spreads over the leaves and flowers. If the plants are lifted about this latter stage, the bulbs will be seen to be marked with black marks, or sclerotia, and they will be quite soft when pressed. Even when the presence of the disease is found at an early stage, the bulbs are soft and in a decaying state. The trouble should be attacked as soon as it is detected, and there is no really satisfactory treatment of the affected bulbs except the drastic one of burning them to prevent the spread of the disease. If the bulbs are removed as soon as the *Botrytis* appears, there is little danger of its spreading.

WHERE large, informal beds are to be filled with flowering shrubs, it would be difficult to conceive anything more beautiful than the Rambler Rose Electra, grown in the way shown in the accompanying illustration. It is of a vigorous character, and if given a few rough supports, such as forked trunks of small trees or branches of larger ones, will quickly fling its luxuriant growths over them, and in the summer create a picture of rare beauty. It is classed by the National Rose Society as a multiflora-scandens Rose, and was first put into commerce in 1900. The flowers are pale yellow in colour, and the plant does well on its own roots, being easily rooted from cuttings, preferably made of half-ripened wood, at the end of July or early in August, and rooted in pots of sandy soil plunged in Cocoanut fibre in a greenhouse or frame. Cuttings, a foot or rather more in length, can also be made in October or November from wood that has been produced the same year, and planted in sandy soil outdoors.

F. B. H.

RAMBLER ROSE ELECTRA.

SEASONABLE NOTES ON AURICULAS.

THERE are three classes or groups of Auricula—the show, which embraces green-edged, grey-edged, white-edged and selfs; alpinas, which are devoid of all meal or farina, either on the foliage or flowers; and the border varieties. The latter are well adapted for the rock garden and flower border, where small groups of one kind are often planted with splendid results. The show and alpinas are usually grown in pots and given the shelter of a cold frame, but it must be distinctly understood that only hardy treatment should be meted out to the Auricula.

Seasonable Hints.—Fanciers term February an active month, and this is certainly true if the weather is open and mild. More water may be given, and we should now aim at keeping each plant just moist. Light at this season is a most important factor in promoting sturdy growth, and if the glass is at all dirty, it ought to be washed immediately. Plenty of ventilation is essential, but cold, cutting, frosty winds must be avoided. Although the Auricula is hardy, it is advisable to protect the plants from sharp frosts from now until the flowers are removed, or the spike may be injured just as it begins to push up.

Offsets.—Some time in this month I always examine the collection, and all offsets large enough for removal are taken off. Many of them will possess roots, but others will not, and may in consequence be treated as ordinary cuttings. Several are placed around the side of a small pot which has been filled with sandy soil, and, if kept close for a few weeks in a hand-light or frame, roots will soon appear, when a separate pot can be given each rooted cutting. The larger offsets with a fair quantity of roots attached should be potted in 3-inch pots, the rooting medium consisting of the best fibrous loam three parts, leaf-mould one part, and a sprinkling of sharp sand to render the whole porous. The receptacles usually chosen for Auriculas are known as "long thumbs," and they are one-third filled with either crushed potsherds or broken brick rubble.

Repotting Offsets.—Those taken at the present time will require a larger pot in a few months, and if given proper attention, especially in regard to watering, they will be nice, healthy plants next season, when some stout spikes of bloom may reasonably be expected. A few offsets are taken in August, and where such work was carried out last year a larger receptacle will now be needed by all those that have filled their pots with roots. Employ the same kind of compost as mentioned above; and make it fairly firm. If woolly aphids are present, sprinkle the plants over with tobacco powder or apply a little methylated spirit with a camel-hair brush.

Seedlings.—In some collections seedlings are raised, and they may also now receive attention. Tiny plants with two or three small leaves may be pricked off into boxes of rather fine soil, about an inch apart. When sufficient progress has been made so that the leaves cover the surface, the seedlings ought to be given a separate existence. The seed-pans must not be discarded, as germination is often a slow and irregular process, the seeds sometimes remaining for twelve months in the soil before germinating. These laggards often prove to be the finest of all, and are then well worth waiting for. Seedlings must not be kept quite so dry at the base as flowering plants.

T. W. B.

THE WART DISEASE OF POTATOES.

THE Board of Agriculture, and Fisheries desire to remind all occupiers of premises declared infected for the purpose of the Wart Disease of Potatoes Order, or of premises situated within an infected area, that it is illegal to plant any Potatoes on such premises unless a licence has previously been obtained from an inspector of the Board or of the local authority. The penalty for any contravention of the Order is a fine not exceeding £10. Such licences can, however, as a rule be obtained, on application to the Board, by any occupier who undertakes to obtain from a dealer approved by the Board one or more of the varieties of Potato here referred to, all of which have been tested, some of them for several years, and have been found to resist wart disease under ordinary circumstances. Seed Potatoes of resistant types saved from the grower's own crop will be permitted. The Board will, on application, send a list of dealers who have undertaken to stock these Potatoes.

Milecross Early (Dickson).—White, round, not liable to ordinary Potato disease (Phytophthora); matures rapidly, haulm strong and quality good; a first early.

Conquest (Findlay).—White, round, heavy cropping, second-early Potato of good quality; must be earthed up high, as tubers are produced near surface.

King George V. (Butler).—Second-early. An elongated, oval tuber, skin netted, eyes shallow, haulm strong. An excellent cropper. Quality moderate; flower white.

Favourite (Dobbie).—A second-early, round in shape, white flower; an excellent Potato.

Supreme (Sutton).—A second-early of pebble shape, white flower, suited to garden cultivation.

Great Scot (McAlister).—A very good second-early; white and round; eyes rather deep; haulm robust; a very heavy cropper under good cultivation. Quality excellent; flower white.

Schoolmaster.—A second-early, white-skinned and round; crops well, but is liable to ordinary disease. Not a good keeper.

Jeanie Deans (Findlay).—A fine oval Potato with strong haulm and white flower. Crops heavily on light, rich soils.

Abundance (Sutton).—A well-known heavy-cropping, late variety, oval in shape, of good quality, rather liable to ordinary disease.

Crofter (Dobbie).—A late oval Potato of good quality; liable to ordinary disease. Flower white.

Culdees Castle.—A pebble-shaped variety, not quite so strong in the haulm as Crofter, and liable

to produce more seed size tubers on light soil. Does well under garden cultivation. Flower white.

Burnhouse Beauty (Dobbie).—A new early maincrop, bearing a large crop of flattish, round, white Potatoes. Flower lavender and white.

Provost (Dobbie).—A late, white, round Potato possessing strong haulm and white flowers; well suited to garden cultivation.

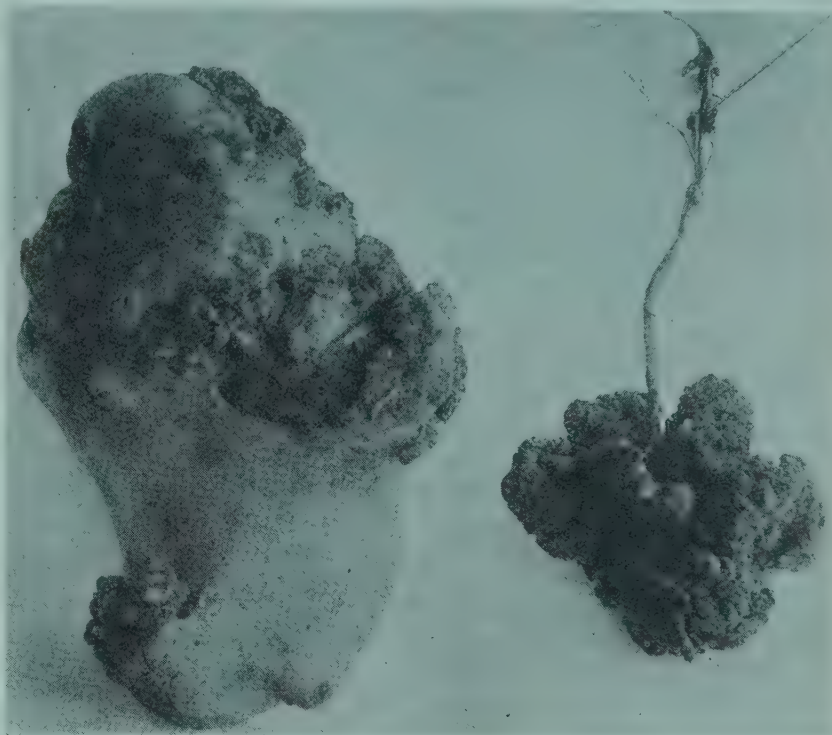
The Admiral (Dobbie).—A late variety, white-skinned and round. Haulm medium, a heavy cropper and good disease resister. Quality excellent; flower white.

Irish Queen.—Tubers round, eyes rather deep, haulm strong. Excellent cropper. Keeps late into season. Flower purple.

St. Malo Kidney.—Tubers coarse, kidney-shaped. Haulm robust. Not a good keeper.

Laird (Davie).—Roundish tuber, flesh white. A robust variety that crops heavily on well-prepared medium loams. Quality excellent.

Flourball (Sutton).—Well-known late variety, round and pink-skinned. Eyes rather deep,



POTATOES ATTACKED BY THE WART DISEASE.

haulm straggling, with bronzing on stems when exposed. Quality very good; flower white.

The Lochar (Farish).—A new maincrop variety of a sturdy growth. Crops heavily on some soils.

Golden Wonder (Brown).—A late white-fleshed kidney with yellowish brown tinge on skin. The "seed" should be a good size, and if unsprouted should be planted before the end of March, as the variety requires a long growing season. Liberal manuring is essential, and in gardens bastard trenching is recommended. It is possessed of excellent quality, and is one of the best late-keeping Potatoes. Flower mauve-tipped white.

Peacemaker (Scarlett).—Is similar to Golden Wonder.

Langworthy (Niven).—A late kidney-shaped Potato possessing white skin and flesh. Tubers may be recognised by the characteristic tapering "heel." Quality excellent. Same treatment as for Golden Wonder. Flower mauve-tipped white.

What's Wanted (Niven).—Shape not so constant as in Langworthy. It bears more tubers, but of a smaller size. In other respects very similar.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Early Permanent Vines.—When the bunches have set, lose no time in removing the surplus bunches. At the same time cut out all growth which is not required to furnish the trellis. Laterals must be stopped regularly, and the shoots may now be carefully secured to their permanent place on the trellis. The roots will be in need of a good watering. If so, diluted farmyard drainings should be afforded. A night temperature of 65° or 70° will not be too much at this stage.

Cucumbers.—Pay timely attention to the stopping and regulating of lateral growths, and when the leading growth has covered about three parts of the trellis, this also should be stopped. Add small quantities of fibrous loam and flaky leaf-mould to the roots as they appear, and occasionally sprinkle a little artificial manure over the rooting area. Syringe the foliage regularly and keep a moist atmosphere at all times. Make further sowings as the supply demands.

Tomatoes.—Plants raised in the autumn should now be setting their fruits. A minimum temperature of 60° must be maintained. The atmosphere must be kept buoyant by the careful use of the ventilators and a brisk heat in the hot-water pipes. The flowers must be carefully fertilised at midday. Keep later plants growing near to the glass, and see that the glass is quite clean.

Plants Under Glass.

Cannas.—The whole of these plants may now be shaken out and repotted. It is easy to increase good varieties by carefully dividing the roots. All the roots must be more or less divided, retaining only the most promising portions, unless it is desired to increase the stock. The Canna is a gross-feeding plant and needs a rich compost in which to thrive.

Begonias.—The tubers which have been resting may now be started into growth. Place them in clean, sifted leaf-mould in shallow boxes till growth commences, when they may be potted into their flowering pots and kept growing in a warm, moist house. Extra large tubers may be divided if increase of stock is desired. Seeds may now be sown in pots or pans. The utmost care will be needed in handling the seeds, which are very minute. Sprinkle a small quantity of sand over them. When sown, cover the pan with a piece of glass and place in a brisk heat.

Coleus thyrsoides.—These may now be cut back with a view to making cuttings for propagation. Some of the most promising of last year's struck plants may be selected for potting on. These will make fine specimens for another season. This plant may also be propagated from seeds.

The Flower Garden.

Seed-Sowing.—Seeds of various plants such as *Lobelia*, *Nicotiana sylvestris*, *N. affinis*, *Ricinus*, *Grevilleas*, *Artemisia*, *Arctotis*, *Dimorphotheca*, *Carnation*, *Petunias* and *Golden Feather*, may be sown now. Prick out seedlings which were sown at the end of last month before they become too crowded in the seed-pans.

Calceolarias.—If extra large plants are required, some that were rooted in frames in the autumn may be potted into 3-inch pots. *C. amplexicaulis* makes a fine individual subject by placing three or four plants in a 6-inch pot, keeping the plants neatly secured to stakes. These will be found useful for massing in the mixed border or for dot plants with other suitable subjects.

Salvia patens.—This delightful plant may be increased by cuttings. The tubers which were stored in the autumn may now be potted up and placed in a warm, moist house, where they will soon make growths suitable for cuttings.

Salvia Blue Beard.—I find this lovely purple Sage flowers more profusely by sowing early and allowing the plants to become somewhat starved in their pots or boxes before planting out.

The Hardy Fruit Garden.

Strawberries.—As soon as the ground is in suitable condition, give the beds a good dusting

with well-seasoned soot; then run the hoe between the plants and clear away weeds and dead foliage. It is possible that some of the plants put out in the autumn may have become loose in the ground through frost. These must be carefully made firm by treading. Old plantations should receive a good mulching with manure.

Protecting Materials.—When the weather is unfit for outdoor work, the opportunity should be taken to overhaul nets and other coverings which are used for protection against late frosts. Some of the nets which are not torn too badly may be mended with tarred twine.

The Kitchen Garden.

Cabbage.—The mild winter has caused the first batch of Cabbage to turn in prematurely, and to prevent a break in the supply any plants still remaining in the seed-bed should be put out, also fill up any gaps in the latest batch. When the ground is dry enough, the hoe must be used between the plants and soot liberally used. A sowing of an approved early variety may be made now in boxes and placed in a house of moderate warmth.

Onions.—Take the first opportunity when the ground is in suitable condition to sow the main crop of Onions. Make the ground firm by treading; then rake the surface fine, after which the seeds may be sown in drills 16 inches apart and about an inch deep.

Carrots in Frames.—As soon as the plants are well above the ground, thin them to about three inches apart. Afterwards water with a fine-rosed can to settle the soil about the roots. Admit air to the frames whenever the weather will allow. Make another sowing in a cold frame.

French Beans.—To keep up a good supply, sowings must be made every ten days. Sow about six seeds in an 8-inch pot and use a rich compost. When the plants are fruiting, plenty of stimulants must be given. The foliage must also be well syringed two or three times a day, or red spider will put in an appearance.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

The Kitchen Garden.

The Herb Border.—No kitchen garden is complete without its herb border. This requires renewing from time to time, as some of its occupants become overgrown and others exhausted. Most herbs are easily raised from seed, and when making a new herb border room should be left for sowing later on such annual varieties as Chervil or Borage. Mint, Thyme, Tarragon and Sage are perhaps the ones most frequently demanded in the kitchen. Plants of Mint and Tarragon force in heat very readily, so that it is a simple matter to keep up the supply of these during the winter and early spring.

Horseradish.—This is a plant that can hardly be grown too large for kitchen use. The small pieces of roots or crowns should be preserved for making a new plantation. Being a very deep-rooting plant, care should be taken when digging up the roots that all of them are removed, otherwise any pieces left in the ground may give future trouble when they commence to grow, perhaps in the midst of a bed of small seedlings.

Seakale.—Small pieces of roots cut off from the crowns which were lifted for forcing should be cut into pieces about four inches or five inches in length and laid closely together in boxes of sandy soil. A cold frame will be all that is needed to start the root cuttings into growth. These will all form crowns ready for planting out later on. The piece of ground which is to become the new Seakale plot should be dug and manured well in advance.

Fruit Under Glass.

Early Vinery.—The temperature of this house should be advanced a little now that growth is making quick progress. As the bunches appear,

and when it is possible to distinguish between well-shaped bunches and the unshapely and small ones, the undesirable ones should be removed, so as to lessen the tax upon the Vines. With shy-setting varieties, such as Muscat of Alexandria, it is best to leave a surplus number of bunches in the event of any not setting evenly. A drier atmosphere should prevail during the time the Vines are in flower.

Strawberries.—More of these should be brought indoors from time to time, keeping in view that the later batches do not require so much time to reach the ripening stage. Plants placed in heat now will, under good conditions, produce ripe fruit during early May.

The Flower Garden.

The Rock Garden.—Any alterations or additions to this garden should be made before the season is any further advanced, so that the stones and soil may get firmly settled in time to allow the planting of the various subjects. After this date snails will become more numerous and active, therefore a sharp look-out should be kept. The young growths of *Gypsophilas* seem to have an especial attraction for snails. A good preventive is to spread fine ashes or gritty sand around the plants likely to be attacked.

Lobelias.—Seed of dwarf bedding Lobelias should be sown now in heat, so that nice plants may develop by bedding-out-time. Good varieties may be propagated from cuttings, which root very readily in the stove. These, in turn, can be topped again, making it possible to raise a large quantity in a very short time.

Ageratums, like Lobelias, are very easily rooted in heat, and a start should be made to propagate them now. After the first batch of cuttings has been rooted, the old stock plants can be dispensed with, as young plants are much more free. Ageratums can also be raised from seed, which is best sown this month.

Box Edging.—Whenever the weather is favourable, commence relaying any portions of this edging plant which require repairing or renewal. The ordinary dwarf Boxwood does not require relaying frequently, but the tree variety, to be kept in a smart, trim condition, requires relaying every third or fourth year, as it is a very vigorous grower.

Shrub Planting.—All arrears of this work must now be hurried on, as many deciduous subjects are showing signs of growth. The planting of evergreens is better done after this date, but should not be deferred too long.

The Wild Garden.—Many plants in this garden need periodical replanting to keep them in good condition. Particularly is this so when the garden itself is of very poor soil. Manure and humus or spent potting soil should be worked in before the plants are returned to their various quarters. Several shrubs will need attention in the matter of pruning before growth commences.

Plants Under Glass.

Euphorbia jacquiniæflora.—This subject will now be passing out of flower, and should be rested for two months. It should, however, receive an occasional watering, just sufficient to keep the plants alive. While at rest the plants may be removed to a cooler house, but should not be subjected to a lower temperature than 50°.

Poinsettia pulcherrima may be given the same treatment as the above.

Gardenias.—To keep up a constant supply of these fragrant flowers, it is necessary to propagate young plants from cuttings at different seasons of the year. Cuttings root freely in a close propagating-frame where there is plenty of bottom-heat at command. Gardenias being so subject to attacks from mealy bug and other insects, sponging and spraying with insecticides must be done almost unceasingly.

Violets.—Young runners in frames which were propagated in August and September should be looked over occasionally, and all side growths and suckers removed. The lights on these frames can now be dispensed with altogether, as the plants must be hardened off ready for planting out next month.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine Bart.)

Castlemilk Gardens, Lockerbie, N.B.

SOME NEWER GARDEN ROSES OF UNCOMMON TYPE.

THERE are always plenty of novelties annually announced in the Hybrid Tea class—far too many, I think; but among other classes of the wonderful Rose family there seems to be a comparatively slow advance. Perhaps I might make exception to this statement as regards the Polyantha Roses, for they are multiplying very rapidly. In this group we have one or two that seem quite departures from the usual type, one especially,

Rodhatte (Red Riding Hood) being extremely decorative, and doubtless very closely related to the Hybrid Teas or Monthlies. The flowers are semi-double, of vivid red colour, and they are of quite large size for the class. For massing, it will be most useful and a worthy companion to Fabvier. Then there is

Tip Top, a delightful Rose with coppery orange flowers heavily shaded with purple. The buds are of exquisite shape, each one a perfect show Rose in miniature.

Gruss an Aachen is quite large, almost large enough for a front-row flower of an exhibition box. The blooms are produced in clusters, and are of a lovely creamy pink shade, with buds of orange red and yellow. It is a delightful Rose and should be in every garden.

Yvonne Rabier appears to be a hybrid of *Rosa wichuraiana* with dwarf spreading growth, ever-blooming habit, and clusters of snow white blossoms as large as, and not unlike, the old Rose *Mme. Plantier*, which was once such a favourite of Sir Joseph Paxton. For massing, or any place where a white flower is needed, this Rose will be valuable. In violent contrast to it is

Merveille des Rouges, one of the most brilliant of the Polyanthas, and probably a cross between Fabvier and a Polyantha. I saw it in May at the raiser's nurseries in Lyons, and it was a wonderful sight and well named. I believe it will be more useful than *Erna Teschendorff*, for this grand-coloured Polyantha was terribly spoilt by mildew nearly the whole of last summer, the mildew affecting even the flowers. Among Rugosa or Japanese Roses we have two grand singles in *Carmen* and *Georges Cain*, both of brilliant colouring, far superior to the type. In the wonderful new group, the Pernetianas, there is a great acquisition in

Louise Catherine Breslau, a Rose that only needs to be known to be wanted by everyone, its colour, a coppery orange, shaded chrome yellow, with coral red buds, being most distinct and novel.

Mme. Ruan and Willowmere are also both charming in colour and resemble largely the Lyons Rose.

Louis Barbier is another variety that has not yet received the attention it deserves. Its semi-double flowers are of a most exquisite mixture of coppery red and yellow, with tints of purple and orange. As a pillar or free bush it will be delightful, and its mahogany-coloured wood is also attractive.

Two lovely singles are *Alexandra Zarifi* and *Mrs. A. Kingsmill*, both excellent additions, the former a fine erect grower with charming long buds, and the latter like a dwarf-growing *Rosa sinica Anemone*, with the colours reversed.

Rosa Moyesi is a most uncommon single Rose of great beauty. Its colour is a sort of brown

crimson, quite unique among Roses, and it may be the forerunner of some good things. I have successfully used it as the pollen parent upon the Hybrid Teas, and look forward to some interesting breaks.

Among Monthly Roses, in *Mrs. Edward Clayton*, *Laure de Broglie* and *Mlle. de la Vallette* we have a trio of good things, distinct and beautiful, and

Gruss an Dresden is even more brilliant than the very brilliant *Leuchtfleur*, from which great things, as a decorative Rose, are expected. The Hybrid Multifloras, that apparently spring from Trier, directly or indirectly, will fill a gap in perpetual-flowering Roses of a free, shrub-like habit. Of these, *Danæ*, *Moonlight*, *Daphne*, *Adrian Riverchon* and *Schiller* are most worthy of cultivation, and should be in every collection where these uncommon Roses are valued.

Queen of the Musks is very pretty, and perhaps should be grouped with the last named. It is practically always in bloom.

Miss Flora Mitten is one of the most charming single Roses we have received for some time, at least among the climbing section. It is a seedling of *Rosa brunoniana*, and makes shoots 12 feet to 15 feet in length in a season. The flowers are very large, some 4 inches to 5 inches across, and are produced in immense trusses of twenty to thirty blooms. They are of a rich, clear pink colour, with lighter centre, and set off by a fine mass of golden stamens. This fine novelty is almost perpetual, and will undoubtedly be one of our best climbing Roses. Another beautiful single Rambler is

Silver Moon. Its flowers have a resemblance to what one might imagine a single *Frau Karl Druschki* would be like; they are produced in nice clusters, and the plant has a wealth of beautiful glistening foliage.

DANECROFT.

THE CLOUD GRASS.

IN those gardens where Sweet Peas are grown largely for house decoration, when cut there is usually a difficulty in securing enough foliage to arrange with the blossoms, as the removal of their own leaves and tendrils on a large scale means the curtailment of the floral display. One of the most suitable and beautiful plants for use in conjunction with Sweet Peas when cut is the dainty little Grass known as *Agrostis nebuloza*, the Cloud Grass, a name that is most suitable on account of the gauze-like appearance of the plant when in flower, the tiny, brownish red blossoms on the very thin and much-branched stems creating a picture that for gracefulness and quiet beauty can hardly be surpassed in the plant world. This Grass possesses the merit of being easy to grow; hence its inclusion in any garden ought not to be attended with difficulty. Most seedsmen supply seeds, and from a packet of these a large number of plants can quickly be raised. Like the Sweet Pea, this Grass is a true annual; hence seeds must be sown every spring, the end of March or early in April being a good time. It will thrive in any soil that has been thoroughly dug and well drained, and the seeds should be sown where the plants are intended to grow. As soon as the seedlings are an inch or so high it will be necessary to thin them so that they stand at least six inches apart, as the flower-stems, which usually grow about eighteen inches high, branch very freely and need considerable room for their proper development. In addition to its usefulness in conjunction with Sweet Peas, this Grass may be utilised for other flowers which are of a graceful character.

H.

BOOKS.

Trees and Shrubs Hardy in the British Isles.*

This work makes a very important addition to horticultural literature, for it presents in easily understood language excellent descriptions of 3,000 or more hardy trees and shrubs, including many of the new Chinese introductions, together with general instructions on cultivation and hints on the treatment of those plants which require special care. The need for such a work has long been felt; for although several books on trees and shrubs have appeared within the last twenty years, there has been no really standard work to compare with Loudon's "Encyclopædia of Trees and Shrubs," which was published between seventy and eighty years ago. The book under notice, however, fills that want, and it will doubtless have as long a reign as Loudon's work. No comparison can be made between the two works, for they are treated in an entirely different manner, the only point of resemblance being the thoroughness with which each author conducted his work.

The new book is the work of Mr. W. J. Bean, the Assistant-Curator of the Royal Botanic Gardens, Kew, who for many years has had personal charge of the fine tree and shrub collections in that establishment, and whose critical knowledge of everything connected with trees and shrubs is well known throughout the country. There are two volumes, the first containing 688 pages and the second 736 pages, and the book is divided into two parts. Part I. ends at page 110 of the first volume, and consists of short chapters on culture, trees and shrubs for various special objects, such as autumn colour, street planting, fine foliage, coloured bark, seaside planting, &c., and concludes with a glossary of botanical terms, which will be found useful to those who find a difficulty with such technicalities. The practical man will be pleased to find chapters upon such pertinent subjects as propagation, hybridising and selection, transplanting, soils, pruning, care of old trees, &c., while the first chapter, entitled "Historical Notes," is particularly interesting.

The second part of the book, however, which begins on page 111 and is continued to the end of the second volume, is the most important, and the more one reads of this part, the more one is impressed by the critical knowledge of the author and the care he has bestowed upon his work. The genera are arranged alphabetically, and in each case a general description of the genus is given; then the principal species are described separately, with any important varieties. The same plan pertains throughout the work, and, in the descriptions of the species, the scientific name with the authority for the name, followed by the common name, when there is one, heads the descriptive matter. Then come well-known synonyms, particularly where confusion is known to exist, and, when possible, a reference to a picture of the plant. The descriptive matter is then divided into two paragraphs, the first giving a botanical description of the species in simple and easily understood terms, and the latter giving its native country, date of introduction, behaviour under cultivation, special requirements and other interesting items.

The following description from Vol. I., page 499, gives a good idea of the working

* "Trees and Shrubs Hardy in the British Isles," by W. J. Bean, Assistant-Curator, Royal Botanic Gardens, Kew. Two vols.—Vol. I., pp. 1—688; Vol. II., pp. 1—736, including index, with numerous full-page and text illustrations. London: John Murray; price 42s. net.

plan: "*Disanthus cercidifolia*, Maximowicz. Hamamelidaceæ. (Sargent's Forest Flora of Japan, t. 15.) A deciduous shrub up to 8 or 10 ft. high, with slender, spreading branches; young shoots perfectly smooth and round, and marked with small whitish lenticels. Leaves alternate, firm, very broadly ovate to roundish, heart-shaped or truncate at the base, blunt and rounded at the apex; 2 to 4½ ins. long, and almost or quite as broad; perfectly smooth, glaucous green and entire; stalk 1 to 2 ins. long. Flowers dark purple, two of them set back to back at the end of a stalk ½ in. long, produced from the leaf axils. Each flower is ½ in. across, with five narrow tapering petals, arranged starwise; calyx with five short recurved lobes; stamens five. Seed-vessel a woody, nut-like capsule. Native of Japan; introduced about 1893, not yet well known in gardens. It has not yet flowered in Britain to my knowledge, and the appearance of the blooms is chiefly known from Sargent's figure above cited. We know it, however, to possess one excellent quality: its foliage, handsome and Judas-tree like in form, turns in autumn to one of the loveliest of claret-reds suffused with orange. No new shrub, indeed, is more beautiful in this respect. It is rather tender when young, but appears quite hardy after a few years. A plant at Kew, 3 ft. high, growing in peaty soil in a bed of heaths, is in excellent condition, and was not injured in the least in the winter of 1908-9. *Disanthus* (the name refers to the paired flowers) is only known by this species. It belongs to that group of the witch-hazel family with many seeds in each fruit. In Japan it flowers in October when the previous year's seeds are ripening, resembling in this respect its ally the Virginian witch-hazel."

From this description it will be seen that a person knowing nothing about the shrub is able to form a pretty accurate idea of its general character and peculiarities, and throughout the book the descriptions are given in the same lucid manner. The book throughout appears to be wonderfully free from errors, the one or two we have noted being of a trifling character and due evidently to the vagaries of the printer rather than to the author, such as the transposing of two letters in the word *Zanthoxylum* which heads page 690 in Vol. II. A considerable number of well-executed full-page photographs of specimen plants by Mr. E. J. Wallis are dispersed through the book, while upwards of 200 line drawings by Miss E. Goldring occur in the text, adding to the interest and value of the work. The book has been published by Mr. J. Murray, and the mechanical part, both as regards printing and finish, is good. We congratulate the author heartily upon the production of such a valuable work, which will be of the greatest use to all who have to do with trees and shrubs. The difficulties which have existed for so long regarding the correct names of certain trees and shrubs ought now to be set at rest, and we should like to see nurserymen and others accept Mr. Bean's decisions in the preparation of their catalogues and the naming of their collections. It is a book which should not alone find a place upon the shelves of every library of horticultural, sylvicultural and botanical works, but should be in constant use.

Sweet Peas and Antirrhinums.*—The author of this little book is undoubtedly one of the best

known men in the Sweet Pea world, and we have often thought that if he could be induced to write on the subject, something of more than usual interest would result. We are glad to find that our anticipations have been realised. Judging by the preface, Mr. Cuthbertson had some doubt as to there being room for another book on Sweet Peas; but this doubt having been appeased, he set to work in right good style. As anyone who knows him would expect, the book is, before all else, practical, and in this direction affords a welcome change from the twaddle that journalists inexperienced in matters pertaining to gardening have seen fit to put into print during recent years. Knowing the wonderful store of historical knowledge that Mr. Cuthbertson possesses, we would have liked to have seen a little more of this, especially in relation to the *Antirrhinum*. We congratulate him on placing the chapter on Sweet Pea culture for the average man before that dealing with the exhibitor. In these days of craze for size, too many authors and, we fear, floral enthusiasts almost overlook the man or woman who grows flowers for the love of them and who cares little or nothing for exhibition blooms. Doubtless his lists of the best varieties for different purposes will cause some heart-burning, but on the whole we consider them good and fairly compiled. The chapters on seed-growing and raising new varieties are, we think, the best in the book; but here again, like Oliver Twist, we would have preferred more, as few persons have given these subjects more attention than the author. Mr. Cuthbertson's faith in the future of the *Antirrhinum* is not misplaced. Anyone who has observed the wonderful improvements that have been made, especially in the colours of the flowers, during recent years cannot help thinking that this useful plant deserves far more attention from the gardening public than it at present receives. The plants are easily raised from seeds, and a good strain now will give seedlings practically true to colour. Another point in favour of the *Antirrhinum* is that up to the present it has not been subject to any serious disease, though in America we believe a species of rust fungus causes considerable trouble. The book is well printed and the illustrations are, on the whole, excellent.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

THE GREENHOUSE.

NERINE FOTHERGILLII NOT FLOWERING (Mrs. E. A. F.).—The cultural directions followed by you have been in the main correct. This is, indeed, shown by the large size and flourishing condition of the bulbs. The one point in which you have erred is in giving the bulbs water before the tips of the flower-spikes showed themselves. As soon as they can be seen, then water may be safely given, but if the plants are watered too soon, leaves, not flower-spikes, are the principal result. One other matter

is that we should certainly advise you to give less liquid manure during the growing season, say, once every fourth watering. By attending to these two points you may reasonably anticipate a good display of flowers next autumn.

CLEMATISES IN GREENHOUSE (G. B. Sykes).—It is quite possible to produce fertile seeds of Clematis in an unheated greenhouse, and no beneficial results would follow artificial heating with an oil stove. Keep the house well ventilated, but do not expose the plants to cold draughts, especially while the growth is very tender. To cross-fertilise the flowers, remove the stamens from certain flowers before the pollen is ripe, and enclose each emasculated flower in a light canvas bag. When the stigmata are ripe, transfer pollen to them, from the variety you wish to use for the male parent, by means of a small camel-hair brush. A sunny morning is the best time for the work. We do not know of any book upon the cross-fertilisation of the Clematis, but the work is quite easy.

TREATMENT OF PELARGONIUMS (*Pelargonium*).—Your suggestions for the treatment of your Zonal Pelargoniums are in the main correct, though exception may be taken to one or two items therein. In the first place, we think that cutting your old plants back to 2 inches or 3 inches is rather too drastic a measure, and would prefer to leave them from 3 inches to 4 inches in height. When cut back and placed in a rather warmer structure, the soil must be kept fairly dry till the young shoots make their appearance, as, if too moist, the plants will break out in an irregular manner. When the young shoots are about half an inch long is a good time to repot the plants. As much of the old soil should be taken away as can be done without unduly distressing the plants. The most suitable compost consists mainly of good loam, lightened by a little thoroughly decayed leaf-mould and sand. It is not to the advantage of these Pelargoniums to put them into pots too large; therefore we advise you that those you speak of as being in 48's would be better put into 32's than in 24's. Some varieties grow more vigorously than others, and it is quite possible that by, say, the end of April you would feel justified in shifting some of the largest into 24-sized pots. The plants must, of course, be kept in a good light position, and any shoots that show a tendency to run away should be stopped. This ought not to be done for a couple of months before the plants are required to be in flower. You will be quite right in removing the flower-buds up to six weeks before the plants are required to be at their best. In the case of the cut-down plants, it is quite probable that you will find pots of the size they are now in will be quite large enough. In this case they will be benefited by a shift into larger ones, say, about the end of April. In potting, the soil should be pressed down firmly, as loose soil leads to rank growth and, consequently, more irregular-shaped plants with fewer flowers. Stimulants should not be given till the pots are well furnished with roots, and even then an excess must be avoided. A couple of months before the plants are required to be at their best is a very suitable time to feed them. This may be given in the shape of liquid manure and soot-water combined, or one of the many plant foods now obtainable. Some of these last being very powerful, they must not be given stronger than the furnished instructions. In any case, once a week is a very suitable time to give these stimulants. Plenty of light and air is very necessary for the successful culture of the different forms of Pelargonium. Regal Pelargoniums.—The end of July is certainly rather late to have Regal Pelargoniums at their best. A good deal may, however, be done by following a systematic course of treatment, though even then you can scarcely expect them to be as good as they would be, say, six weeks earlier. It will be a good plan to put the plants that need a shift into larger pots. The growing points, too, may be pinched out in order to induce the formation of secondary shoots, but this should not be done later than two months before they are required to flower. The buds may be picked off up to six weeks beforehand, but on this point a little discrimination must be used, as a spell of dull, cold weather may cause the blossoms to stand still, or nearly so. In that case it is better to have the flowers in bloom a little too early than too late. Your application for the rust may have been a little too strong. The same instructions as to potting, compost, air, &c., will apply as those directed for the Zonal Pelargoniums. If your plants are intended for a show, you will find it a great advantage to gum the flowers before moving them about, as the petals so readily drop. Florists' gum can be readily obtained from the horticultural sundriesmen, and a tiny drop in the centre of the flower will go far to prevent the premature dropping of the petals.

ROSE GARDEN.

TONK'S ROSE MANURE (E. S. M.).—This compound is not offered for sale, so far as we know, but any good firm, such as Messrs. V. Voss and Co., Carlton Works, Millwall, would make it up for you. The recipe is as follows: Superphosphate of lime, twelve parts; nitrate of potash, ten parts; sulphate of magnesia, two parts; sulphate of iron, one part; and sulphate of lime, eight parts. Apply it this month, a quarter of a pound to the square yard of surface. The climbing Roses in the greenhouse should be pruned after flowering, say, about May. They would then have the summer to make new growths, which are retained almost full length to flower the following spring. If the long growths have side shoots or laterals, you can prune these now to about three eyes from their base, but retain the long rods made last year nearly their full length.

* "Sweet Peas and Antirrhinums," by William Cuthbertson; price 1s. net. London: Messrs. James Clarke and Co., 13 and 14, Fleet Street, E.C.

THE GARDEN.

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FEBRUARY 27, 1915.

NOTES OF THE WEEK.

A Handsome Hazel.—Few prettier sights are to be seen in early spring than good specimens of the Hazel when well laden with male catkins. This year in many places they are making a fine display. A shrub worthy of more attention for its ornamental qualities is the Constantinople Hazel (*Corylus Columna*), which forms a tree and bears longer catkins than the common kind. When in fruit the peculiarly cut calyx, which most covers the nut, is also very interesting.

Ivy for Covering Damp Walls.—There are many uses to which the Ivy may be put, and in a number of cases it has no equal, one of these being for covering a damp wall. An instance we have in mind is a wall of a dwelling-house which at one time suffered very much from damp. On our advice Ivies were planted to grow up the wall, and we understand now that it is well covered and that very little evidence of damp is seen. This is undoubtedly known to many, but it may be a useful hint to some of our readers, as Ivy can be successfully planted at this season.

Winter Aconites and Snowdrops.—These are very pretty at the present time, in some places grown separately and in others as a mixture. They are used in some instances to carpet ground beneath shrubs, and are particularly attractive when planted in broad masses. In some places they are used beneath beds of red-barked shrubs, such as *Cornus alba*, and the contrast is very effective. Both Winter Aconites and Snowdrops may be expected to give better results when planted in cultivated or semi-cultivated land than when planted in close grass, for they cannot adapt themselves to close turf with the same facility as the Crocus; therefore, when groundwork is wanted for beds or borders of deciduous shrubs, they should be remembered.

The Japanese Witch Hazel.—The difference between *Hamamelis japonica zuccariniana* and other Witch Hazels is most apparent in the colour of the flowers, for instead of the familiar golden hue, the blossoms are in this case a clear pale cream. A native of Japan, it forms a large bush or small tree in its native country. Here we are familiar with it as a wide-spreading bush, at least six feet or eight feet high, with rather slender branches, from which a profusion of flowers with narrow, curiously twisted petals appear during

late January and early February. It cannot be depended upon to come true from seeds, and is usually grafted upon stocks of *H. virginiana*. When planted in light, loamy soil containing a little peat, it grows rapidly and forms a shapely bush with little or no pruning.

Pernetiana Roses.—At a Council meeting of the National Rose Society, held last week, it was definitely decided to adapt the prefix "Pernetiana" to the group of Roses characterised by Rayon d'Or and Arthur R. Goodwin. Although this name is not botanically correct, it has been so universally adopted that it was considered by the majority of the members of the Council inadvisable to alter it. We suggest that the botanical difficulty could

pass on the hint for the benefit of any readers who may have these plants at their disposal. Even without the Ferns the two colours would be charming.

The Perpetual-Flowering Carnation Society.

—We understand that the above Society has just completed arrangements with the North of England Horticultural Society for holding an exhibition at the Corn Exchange, Leeds, on April 29 and 30. The schedule will be published shortly.

Preserving Cut Flowers.—The results of numerous experiments conducted at the Cornell University, U.S.A., show that there is no better method of preserving cut flowers yet known than cutting a short piece off the stem each day. A number of chemicals, dissolved in the water, were tested, but the results were not such as to justify their recommendation.

The Kashmir Primula.—Before many weeks are over, the beautiful Primula illustrated on this page will be opening its globe-like heads of violet flowers. Although classed by the Kew authorities as a variety of *Primula denticulata*, it is regarded by many as a distinct species. It is a charming plant for a moist spot in the rock garden, but shade is not a necessity. The under surface of the foliage is coated with farina. Soil that consists of good loam and a little rough peat seems to suit this Primula, which certainly deserves to be better known than it is at present.

Outdoor Crocuses for Bowls.

—Owing to the wet, cold and windy weather, the early Crocuses, such as *Sieberi* and *biflorus*, have presented

a very dejected appearance outdoors this year. To enjoy their full beauty we have lifted some good clusters, put them into glazed bowls filled with sand, and taken them indoors. There the flowers quickly expand, and reveal the beautiful orange stigmata and internal colours of the perianth segments. The plants should be lifted with roots and soil intact, placed in the bowls, and the spaces between filled with dry sand, ordinary builder's sand or silver sand answering equally well. This is then thoroughly soaked with water and the surface covered with a little green moss to give the whole a neat appearance. Treated in this way Crocuses will last in good condition for nearly, or quite, a fortnight.



A WELL-FLOWERED PLANT OF THE KASHMIR PRIMULA
(*P. DENTICULATA CASHMERIANA*).

have been eliminated by calling this class Pernet Roses, in the same way as we refer to the Noisette group.

A Charming Colour Arrangement of Greenhouse Flowers.—When inspecting the private conservatory of a partner of one of our leading seed firms last week, we were particularly pleased with a simple grouping of flowers. At the far end of the conservatory Maidenhair and other Ferns had been arranged to form a steep bank, two fairly large spaces towards the centre being left for flowering plants. These were filled with blue *Primula obconica* and the yellow *P. kewensis*, the twain being lightly intermingled. The effect was so quiet and good that we

HOME-GROWN VEGETABLES AND OUR FOOD SUPPLY.

Our article and the subsequent letters on the above subject have created considerable interest among horticultural societies, and we give a selection of letters from those who have already adopted our suggestion, or intend to do so. We take this opportunity of once more pointing out that the object of our article was mainly to increase our home supplies of food, the disposal of any surplus produce being a secondary matter. We shall be pleased to send reprints of the article to any secretary of a horticultural society for distribution among his members.

I MYSELF am fully in sympathy with the work, and you can take it my society will be. Last August I wrote, through the medium of the local Press, urging the cultivation of every available plot of land, large and small. In November we also held a special patriotic show, and raised a clear profit of £142 for the National Relief Fund. We have already decided to go forward with our exhibition as usual, on July 16 and 17; in fact, our schedule of sixty-eight pages will be out next week. I wish the movement every success, and assure you of my whole-hearted interest and co-operation.

WILLIAM G. CARRADINE.
Birmingham Horticultural Society.

THE doings of our horticultural society have perforce to be indefinitely postponed during the war; but I for one—and others on the committee—have strong ideas of the desirability of wakening everybody to the desirability of increasing our vegetable supplies. By precept and example I hope to continue the crusade, trusting that others may also rise to the importance of the same. I hope your article may increase enthusiasm on the subject.

LILIAN JONES BATEMAN, Hon. Secretary.
Abergele Horticultural Society.

I SHALL be pleased to place the article on vegetables before my committee. They are thinking of withholding all prize money in gardeners' classes, and, after deducting bare working expenses, to present all surplus money to the Belgium Restoration Fund. I will certainly do all in my power to get members to send any vegetables they may have to spare to some institution.

C. E. BROOKER, Secretary.
Highgate Horticultural Society.

IN reference to the important question of our national food supply, I may say we have had this question under consideration, and have already adopted a system for sending a monthly supply of fruit and vegetables to the Fleet at some naval base. Our president and myself have been appointed as a local committee (Norwich branch), and we have appealed to all our members, as well as to those of the affiliated Norfolk and Norwich Horticultural Society, and also to the Norfolk public, through the Press for their co-operation and support. All contributions are received at my office address monthly, whence I have already sent away two good representative consignments, which have been gratefully acknowledged. It is our intention to maintain a monthly supply throughout the summer if possible, and trust that our efforts will meet with success.

W. L. WALLIS, Secretary.
East Anglian Horticultural Club.

I READ your article *re* increasing our vegetable supplies before the members at our last meeting. Time would not allow a good discussion upon the

subject, but as it was sent to the committee for them to consider it, we shall have a special meeting next week for this purpose. If in the meantime any further suggestions are offered by your readers, will you let me know, and I will forward to you any information I can gather upon the matter. The enclosed circular *re* Croydon Vacant Lands Cultivation Society may interest you. This is a separate body to our society, but part of the committee is composed of members from our society. A considerable amount of vacant land is now under cultivation.

HARRY BOSHIER, Hon. Secretary.
Croydon and District Horticultural Mutual Improvement Society.

[Judging by the circular sent by Mr. Boshier, the Croydon Vacant Lands Cultivation Society is doing good work in securing vacant plots and getting them under cultivation by working men.—ED.]

OUR society is in sympathy with your good move, and we wish you success in your work for a good cause. Our committee do not see their way clear to offer any products just now, but if any be needed during the summer months, perhaps we shall be better able to do it then. I may state that we are situated in a colliery district, and it is hard work here to cultivate our own produce. *Re* growing and assisting others to cultivate their gardens, we have already done good work in this way, and are still doing good work in encouraging cottagers to cultivate their plots of ground. We intend to hold a show on August 19, and all the proceeds will be devoted to the proposed new cottage hospital in this locality. We are affiliated to the Royal Horticultural Society and hold weekly lectures on horticulture free of charge, when there is a very good attendance. Our last lecture was on the Brassica family, the lecturer being Mr. W. Payne. He urged us to grow Cabbage, Cauliflower, Brussels Sprouts, &c., because one or the other is available all the year round.

T. M. LLOYD, Secretary.
Aberaman Horticultural Society.

IN reference to growing more vegetables, I would tell you some of our work as a horticultural society in this district. After many years of struggle, we have secured nearly thirteen acres of land, which we let to our members as allotments, ranging from five to twenty rods of ground each, so as to spread it among as many as possible. We have 177 working these plots. All are keen, and every plot is let. We discourage the growing of flowers on these by refusing to allow flowers grown on allotments to be exhibited at our shows. I may say we have a full programme, as usual, this year, our motto being "Carry On." Regarding your note on the supply of seeds, one of our committee drafted a collection suitable to our members' needs and submitted this to a reputable firm of seedsmen, and asked them to supply these collections at a fair and low price. The firm did so, and our members have the seeds. We have lectures and

discussions at the beginning and waning of the seasons, so that our members may gain knowledge and also begin necessary operations at the right time. We try to embrace every branch of horticulture in our schedule. In the economic section we have over forty classes this year at our summer and autumn shows, also classes for home preserves. The matter of surplus vegetables we have fully discussed, and you will readily understand that, with the small plots our members have, there will not be much left after their own family needs are catered for; if there are any, we shall, no doubt, find some way of collecting them and sending what we can where they are needed. But you will, no doubt, agree with us when I say we consider we are doing good work by encouraging our members to keep their own families supplied first. Of course, we feel things tight this year, but I have had so much encouragement already that I face the work very hopefully now. I trust you will excuse my lengthy epistle, but I wished to show you we are alive and have anticipated the ideas expressed in your article, and have dealt with every phase of it to the best of our ability. When I tell you our work is all done in the evenings, you will realise the result is not unsatisfactory.

H. A. BEECROFT, Hon. Secretary.
Seven Kings and Goodmayes Horticultural Society.

IN reference to your article on "Home-grown Vegetables and Our Food Supply," I think the ideas advanced are excellent, and I will endeavour to get the societies connected with our association to do what they can in regard to the matter. We hope to hold our show on August 25 and 26.

H. DUNKIN.
Warwickshire Horticultural Association.

YOU may be interested to hear that the Birmingham Horticultural Society have applied, through Mr. William G. Carradine, their secretary, for a grant of our small booklets on "Cropping Allotments" for the use of their members. I have sent them five dozen. You will be interested to know that your article on "Home-grown Vegetables and Our Food Supply" has evidently attracted attention in quarters where you would desire it.

EDWARD OWEN GREENING.
The Agricultural and Horticultural Association, Limited.

I WAS very pleased indeed to see the excellent letter from Dr. Lillias Hamilton in your last issue. The most important point raised by her is, I think, that more root crops should be grown this year than usual. Undoubtedly Potatoes, Onions or Carrots will produce more valuable food from a given area than Cabbages or Cauliflowers, wholesome and useful though these are. Co-operative piggeries for allotments ought certainly to be widely adopted. Apart from eating up refuse, pigs provide a particularly valuable garden manure.

ANOTHER F.R.H.S.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Helxine Solierolii as a Carpeting Plant.—I do not think this very useful carpenter is as well known as it should be. It grows, to quote Mr. Farrer, "as quick as a dream or a fungus." It has the reputation of being not quite hardy; but here in Birmingham, where the climate is anything but genial, I find it will stand any amount of frost, provided it is kept dry from November to March with a pane of glass placed an inch or so above it. It is in the moraine and is also spreading itself all over the path, and is a beautiful bright green all the year round. I find it more satisfactory than *Arenaria balearica*, which here is apt to die off. Another advantage is that every scrap broken off will grow.—H. E. I.

Shows, Schedules and Judges.—Having had a rather lengthy experience both in the framing of prize schedules and in judging, I feel interested in the discussion in THE GARDEN on the above subjects, and would like to draw attention to a common mistake made by judges, either through lack of thought or through lack of moral courage. I refer to the failure to withhold a prize or to make a modified award in the case of an inferior exhibit, when only one exhibit, and that of inferior quality, is staged in a given class. A first prize is often awarded as a matter of course, thus giving the public an erroneous impression as to what is the ideal standard of excellence with regard to the subject for which prizes are offered. On the same principle, two exhibits are staged in a class, the one of great merit, the other greatly inferior; but they are awarded first and second prize respectively. In my opinion, "these things ought not so to be."—CALEDONIA.

The Purple-Flowered Cistus.—There is no doubt that *Cistus purpureus* is the finest of its colour, although one often meets with many inferior plants under that name. By some it is regarded as a native of the Levant, while other authorities recognise it as a hybrid between *Cistus ladaniferus* × *C. villosus*, and there seems reason to believe that the latter is undoubtedly its true origin, for no specimen has ever been known to be collected wild, while it gets its colour from *C. villosus* and its size and spots from *C. ladaniferus*. It is of a spreading habit, about four feet high, and often more through, with dark green, oblong, slightly rugose foliage. The flowers, which are quite 3 inches broad, are terminal, generally in threes, and are lilac purple in colour, while near the base of the petals the beauty of the flower is enhanced by a large ruby red spot, which makes it so distinct and ornamental, and in striking contrast to the bright yellow stamens. The *Cistus*es are among the showiest of ornamental flowering shrubs, blooming for a considerable part of the summer, and should be included among any that are being planted. They are excellent for sunny positions in light soil, often thriving in poor ground where many other shrubs would fail.—F. G. PRESTON.

The Ideal Daffodil Catalogue.—May I crave a little of your space for comment on the Rev. J. Jacob's "Daffodil Notes" in your issue of January 30, as far as they deal with my previous remarks on Daffodil catalogues? Mr. Jacob's notes are always interesting, but he must pardon me if I confess to finding them in this instance less relevant than usual. The point of my remarks

lay in the contention that in the best Daffodil catalogue known to me, certain marks of excellence have been awarded to the several varieties (four crosses to the best quality, three to the second-rate, and so on), and that the excellence thus indicated is, roughly speaking, in proportion to the price; in other words, that, when a variety sinks to a moderate price, it becomes, *ipso facto*, second-rate. In support of this contention I gave certain figures and averages from the Pimlico catalogue. Mr. Jacob says nothing to controvert this, though no doubt he can guess shrewdly enough what catalogue was in my mind. (I might say, however, that my figures were taken from the 1913 catalogue and not from that for 1914, which was not then to hand.) As to high-art adjectives, if bulb merchants choose to use these to excess, there is no statute to prevent them, and dictionaries are cheap. The only fear is that they may exhaust the language and get gravelled for lack of high-flutin epithets. By the way, a certain Irish firm

Good in grass, pots, beds, and vases—2s. per doz. Mrs. R. Sydenham (Ajax).—This is one of the best recently introduced white self-coloured Daffodils, of perfect form and great substance; perianth broad, firm, and pure white; pure white narrow trumpet beautifully recurved at mouth; still, in our opinion, unsurpassed as a white trumpet. A.M., R.H.S. Good in beds, pots and vases—12s. 6d. per bulb. Alannah (*Triandrus Hybrid*).—A lovely self lemon colour, short trumpet, beautifully crested at mouth, with very level perianth; a very beautiful flower—£30 per bulb." The trail of the serpent is perhaps traceable even in Doe and Roe, but, at any rate, their catalogue does not pay to mere costliness the homage paid by some firms. If I might make a suggestion (which I do with diffidence), it is that a certain economy should be practised in the expenditure of epithets, in respect at least of a flower which "needs no bush." That comprehensive word "precious," which conveys all that there is of



THE PURPLE-FLOWERED ROCK ROSE (*CISTUS PURPUREUS*).

(the well-known Messrs. Doe, Roe and Co. of Dublin) distributes a Daffodil catalogue which bids fair presently to come within measurable distance of the 'ideal catalogue. In point of scientific arrangement and "get-up" it is not equal to that of the Pimlico firm; but its intention is excellent, and the information it gives, if less ecstatic, is fuller and more serviceable, though, so far, not so full and serviceable as it might be. I extract from this Dublin catalogue two or three paragraphs, in the ambitious hope of convincing Mr. Jacob that the perfect catalogue, when it arrives, need not be cold, and, what is perhaps equally desirable, that it may achieve its purpose without bringing the English language to bankruptcy. It must not be forgotten that in listing Daffodils a correct classification is in itself descriptive—half the battle, indeed. This is how Doe and Roe proceed: "Albatross (*Burbidgei*).—A beautiful flower, with large spreading white perianth, and pale citron-yellow cup, edged bright orange scarlet; very floriferous; one of the best. F.C.C., R.H.S.

"too-tooishness," might be reserved for flowers costing, say, from £5 to £50 per bulb; so that, if a variety were described as "precious," we should know that it was a flower of surpassing loveliness and cost a minimum of £5. The baldest and most pedestrian prose available would be used for such flowers as cost a beggarly 30s. or less. The middle zone (between 30s. and £5) might be reserved as a Daffodil limbo or purgatory, where flowers on the down-grade might linger till such time as they became cheap enough to be finally d—mn—d.—SOMERSET.

FORTHCOMING EVENTS.

March 2.—Royal Horticultural Society's Exhibition of Flowers, Plants, &c., 1 p.m. to 6 p.m. Lecture at 3 p.m. by Dr. Claud F. Fothergill on "Pressing Flowers to Retain Their Colours"; and by Colonel Rawson, C.B., on "Colour Changes in Flowers by the Removal of Sunlight." Royal Horticultural Hall, Vincent Square, Westminster.

THE EARLY HISTORY OF LILIUM TESTACEUM.

THIS beautiful and distinct Lily, which is referred to by Sir Herbert Maxwell, Bart., on page 64, as one of the loveliest of the race, is, as stated by the writer, of unknown origin. Concerning its early history, the most complete account that has come under my notice occurs in a book of 122 pages, entitled "Monographie, Historique et Littéraire des Lis, par Fr. de Cannart d'Hamale, Président de la fédération des Sociétés d'Horticulture de Belgique, &c.," printed at Malines, 1870. Somewhat curtailed and rather freely translated, it reads as follows:

"There is also another Lily, with recurved petals, concerning the origin of which we have but a vague idea, but which, nevertheless, appears to be Japanese, viz., *Lilium testaceum* of Lindley (the Nankeen Lily). It was first discovered by M. Fr. Ad. Haage, jun., of Erfurt, accidentally, in a large consignment of Martagons which he had received from Holland in 1836, and with which it had been mixed. The plant was introduced into Belgium by L. van Houtte of Ghent, who had received a case full of it from M. von Weissenborn of Erfurt in exchange for some Fuchsias. This exchange was made in 1840 or 1841, at which time there is no question that of this unknown Lily three persons of Lille in France each possessed an offset. One only of these offsets chanced to flower, at Esquermes-lez-Lille, and showed an umbel of pendant blossoms, with petals reflexed like the Martagons, but larger and of a beautiful nankeen colour, slightly tinged with rose, and dotted with a deeper tint at the base. The bright orange-coloured stamens served to add to the beauty of the flower.

"M. van Houtte, who happened to be at Lille, was fortunate enough to see this splendid novelty. He eventually received from M. von Weissenborn an order for Fuchsias, with a postscript in the following terms: 'If by any chance you want the nankeen-coloured Lily, I have a quantity at your service.' M. van Houtte did not think twice about it, and seized with avidity the good fortune offered to him. He accepted the exchange, and soon became the possessor of a case more than a yard square full of Nankeen Lilies of all sizes, the largest bulbs measuring more than a foot in circumference.

"This news soon spread to Lille, and there caused much talk and great disappointment when the possessors of the three offsets were convinced that the Lily of which M. van Houtte had become the owner was the same as those which they guarded so jealously. The Nankeen Lily passed from Belgium to England, where it flowered for the first time with Messrs. Rollisson. It was figured and described in the *Botanical Register* by Dr. Lindley in 1843, under the name of *Lilium testaceum*. Dr. Kimtze of Halle had described it as *L. isabellinum*, and it also bore the name

of *L. excelsum* among gardeners. M. Rinz, sen., a nurseryman at Frankfort, and another gardener at Leipzig claimed to recognise in it an old friend which they had cultivated in their younger days. This was evidently a mistake, for no mention of this Lily has been made in any work on botany or horticulture. We are more inclined to believe that it is of recent introduction, and that the Dutch received it from Japan, with which country they were in constant communication. But is it really a true species? Or is it not rather the product of the white Lily fertilised by one of the *Pomponium* section? The general appearance of the plant would lead one to suppose so."

As the foregoing was written within a reasonable distance of the time that *L. testaceum* made its first appearance, information on many points

PLANTS FOR OLD MASONRY WALLS.

THE clothing of old walls with vegetation of a varied and more or less pleasing character is a phase of gardening which is being more widely adopted each year. When successful, a wall thus treated should prove a source of great enjoyment to its owner and possess the additional merit of costing very little to maintain. Where dry walls have been specially built with a view to providing a congenial home for plants that naturally appreciate a more or less dry and elevated position, the process of evolving a pleasing array of flowers and foliage is much simplified, and as such walls have previously been dealt with, it is not proposed to give more than a passing word to them now.

It is in relation to the clothing of those old masonry walls which exist in so many gardens that information is often sought after, and it is here that the ingenuity of the gardener needs to be exercised to the utmost limit. Such old walls may be roughly divided into two sections, i.e., retaining walls and those which have both sides more or less fully exposed to the elements. It is in the first-named set that we find the best home for our flowers; but those of the latter section, particularly on the sunny side, may be made attractive by the application of a reasonable amount of intelligent and unremitting care.

As in most other phases of gardening, the success or otherwise of our efforts to establish plants on walls of this description depends not a little on what may be termed the spadework, consisting actually of the free use of a cold chisel and a hammer of substantial proportions. There is no doubt that the best way to establish plants in a masonry wall is to follow the dictates of Nature, and instead of attempting to introduce large plants of flabby character, to rely on very small seedlings, or, better still, the seeds themselves. While some successful wall gardeners declare the autumn to be the best season for sowing seeds or introducing seedlings, others are equally emphatic in advocating March or April as the best time in which to do the work; and, all

things considered, there is rather more to be said in favour of the latter period than the former.

To return to the preparation of the wall. This must be seen to without delay if seeds are to be sown this spring, as the earlier they are in now, the better. In the case of a retaining wall, the top usually forms a suitable ledge for several inches of soil, in which a number of plants may be grown that would scarcely thrive in the crevices between the bricks or stones. It is in the making and filling of these crevices that some care needs to be exercised. A long cold chisel, driven home with a heavy hammer, will, in most instances, quickly clear out sufficient of the mortar to allow a moderate packing with soil, and in some cases it may be possible to dislodge a small portion of



THE AMERICAN FRINGE TREE (*CHIONANTHUS VIRGINICA*) AS A POT PLANT.

would be more readily obtained than at the present day—forty-five years later. H. P.

THE FRINGE TREE AS A POT PLANT.

THE illustration on this page suggests what a charming subject for ornamental pots we have in the little-known Fringe Tree (*Chionanthus virginica*). This shrub or small tree is a native of the Eastern United States, and in the open forms a bush up to 10 feet in height, its flowers being produced at the end of May or early in June. The blossoms are white, feathery, and very fragrant. It will grow well in good loamy soil, and deserves to be much more widely known.

brick or stone without endangering the safety of the wall. All the crevices should slope downwards to some extent, so that any moisture which collects on the side of the wall may have an opportunity of reaching the roots of the plants. The best soil for filling such crevices is good turfy loam and chopped sphagnum moss, the latter being added for the sake of its moisture-retaining properties. This mixture must be rammed well into the crevices, a few small pieces of brick and stone being wedged in afterwards to prevent it being washed out. If these can be allowed to project slightly, and made to slope inwards and downwards, they will assist considerably in collecting moisture for the seedlings in the earliest and most critical stages of their career.

The actual sowing of the seeds may be done in various ways, but the most practical is to roll a few seeds into a small ball of similar soil to that used for filling the crevices, and thrust this well into the packed cracks. There is little danger of seeds sown in this way being blown out by wind. If seedlings are used, they must be planted in the crevices at a very early stage of their career. If possible, a heavy syringing of the wall late in the afternoons of bright days will assist the seedlings to become well established before the autumn. The clothing of masonry walls with plants is of necessity a slow procedure, and one that calls for a certain amount of patience on the part of the owner.

The following are plants that may be sown at the present time on walls of the description mentioned, and although some failures are almost certain to occur, sufficient success should be secured to induce the cultivator to sow more another year: For tops of retaining walls—Pentstemons, Wallflowers, Antirrhinums, Thrift, such Pinks as *Dianthus fimbriatus*, **alpinus*, **arenarius*, **cæsius*, **Caryophyllus*, **cruentus*, *deltoides*, **suavis* and *sylvestris*; Alpine Poppies, *Aubrietias*, *Arabis alpina*, *Corydalis lutea*, *Alyssum*, *Lychnis Lagascæ*, *Campanula rotundifolia*, Foxgloves, *Honesty*, *Linaria alpina*, **L. Cymbalaria*, *Drabas* of various kinds, **Erinus* in variety, *Saponaria ocyroides*, *Gypsophila cerastioides*, *Sedums anglica*, *acre*, *dasyphyllum*, *rupestris* and *grandiflora*. In addition to those above which are marked with an asterisk, the following are suitable for the sunny, or partly sunny, side of a wall: Any of the *Encrusted Saxifragas*, of which seed can be obtained; *Campanula muralis*, *C. pulla*, *C. garganica*, *C. cæspitosa*, *C. pumila* and *Arenaria cæspitosa*. For the shaded, or partly shaded, side: *Linaria Cymbalaria*, such Mossy *Saxifragas* as *sancta*, *Elizabethæ*, *juniperifolia* and the *Campanulas* named above as suitable for the sunny side. The *Sedums* mentioned for the top of retaining walls are best installed by sowing the fleshy leaves. These should be pulled or shaken off the stems, mixed with fine potting soil and placed in the positions it is intended the plants should occupy. There are, no doubt, many other plants that could be induced to thrive on old masonry walls, and not a little of the interest and pleasure derived from this form of gardening is obtained by experimenting with likely subjects.

In the crevices of dry walls practically all the plants named as suitable for the tops of retaining masonry walls could be grown, as there would, of course, be sufficient soil and moisture present to enable them to thrive. As previously stated, a dry wall possesses far greater possibilities than a loaded one.

H.

A CHARMING WINTER FLOWER.

CYCLAMEN COUM.

DESPITE their attractive flowers and the fact that many of the species bloom at a very welcome time of the year, the hardy *Cyclamen* do not appear to be grown (especially in the small garden) to nearly the extent that their beauty justifies. The accompanying illustration of a group of *Cyclamen* grown by Messrs. Piper shows how decorative a colony of *C. Coum* can be with its

SEASONABLE NOTES ON CARNATIONS.

Winter Flowers.—Though there has been abundance of bloom on Carnations, even in the depth of winter, the flowers have been smaller than usual, not improbably on account of the almost entire absence of sunshine for weeks on end; but there also may be a contributing cause in the abnormal freedom from frost, permitting the almost total dispensing with artificial heat and giving the plants less air. About the middle of January all the plants were surface-dressed with artificial manures, and with the lengthening days there is to be seen a decided improvement in the flowers.

About Novelties.—For a time I was dubious whether the much-praised novelties of last



A BEAUTIFUL COLONY OF CYCLAMEN COUM, A CHARMING WINTER AND EARLY SPRING FLOWER.

rich-coloured flowers (and also its white or pale pink form) when they come to gladden us in February, rising but 2 inches or 3 inches in height above the deep bronzy green foliage devoid of marbling (which characterises many of the other species). The under sides of the leaves, too, are of a rich bronzy crimson tone. The best cultural conditions appear to be half or three-quarter shade, extremely gritty humus, with copious drainage, and an absence of disturbance. At the base of some large tree where the soil is light, poor and more or less dry, the *Cyclamen* seem to thrive amazingly, while, if beds are prepared for them in the rock garden—perhaps at the base of some large sheltering stone—where the soil consists of half stone rubble, with sand, leaf-mould, fibrous loam and old mortar in about equal proportions, they will do quite well, and make a delightful picture in the early spring.

REGINALD A. MALBY.

spring were likely to be of value. Now it is clear that *Champion* is a glorious colour, but I am afraid the plant may prove less healthy than some of the more vigorous sorts—*Triumph*, for instance. I care less for *Gorgeous*, though this, too, is a great acquisition, and it would be none the less so were it less tall in habit. *Champion* is likely to run *Mary Allwood* very close for supremacy, and it is likely to be a case of the old song, "Were t'other dear charmer away." A few plants of *Mary Allwood* have produced very "washy" flowers, so different from the true form that it is curious how they should be so much unlike. The unreliability of Carnations is, of course, well known, but I have never seen any go quite so far astray as this. Last year we had one or two plants of *Mikado* which produced much-improved flowers, and of *Rose Doré*, always good in colour, there was one plant which gave us blooms of the most entrancing loveliness. *St. Nicholas* is

generally reckoned a little less good than it might be. At the same time, it has always proved itself here to be a reliable winter bloomer, and in the open in summer there is none better. It has a nasty habit of breaking badly in spring, and more than once I have found it necessary to pinch out the one or two breaks in order to force the back buds to come away.

The Rooting of Cuttings.—Last autumn some cuttings rooted in a shorter space of time than I previously had noted. It is usually not difficult for the experienced eye to distinguish a cutting which is making roots. Eight days after inserting a batch I noticed in a few that roots were being formed, and on raising them found it to be the case. Frequently I have known roots to be produced in ten or eleven days; but this is the shortest period in my experience. I wonder if any of your correspondents have noticed such rapid production of roots.

One Year Old Plants.—The exigencies of labour arising from the war have made it impossible to grow as many plants as usual, and a portion of one year old plants will shortly be set aside to supplement those recently propagated. It is customary to grow on a few thus every year, especially of the better novelties, and it is well known that Carola gives the best results in the second year; but these are merely given a larger-sized pot, to provide the needed nourishment. Many of our plants are already in pots large enough to carry them on through another year, and it is a moot point whether it would be better to give nourishment by periodical applications of manure or to reduce the ball and repot in receptacles of the same dimensions. My own feeling is that with the majority of plants the first-mentioned method is quite equal to the demands of the plants, the danger of reducing the ball being a loss of foliage owing to drying before new roots could be formed. In most plants this would not occur, but with the Carnation it has to be reckoned with. Only those plants which can be reduced considerably in height are of use for a second year's production, and with this in view I have been removing all side shoots well up the stems as they appear, and encouraging the lower ones to strengthen themselves.

There is nothing to be gained in stopping the last named before they become fairly strong, even though it seems a waste of time and of vegetable vigour. When stopping does take place, once the stems have become fairly firm they must be pinched well back, say, to the lower eight leaves. Stopping of young plants should be effected on the same principle. If it is essential that a plant should be allowed to make twenty leaves before being stopped, not more than six or eight should be left after stopping. The shoots forced to break will invariably be stronger.

R. P. BROTHERSTON.

Tynningham, Prestonkirk, N.B.

THE DELPHINIUMS OR PERENNIAL LARKSPURS.

FOR creating bold effects in the outdoor garden, the stately Delphiniums or perennial Larkspurs are unsurpassed. Ranging as they do in height from 3 feet to more than twice that stature, according to the soil and variety, they can easily be accommodated in beds or borders, or any other positions that it may be necessary to fill. Good blue flowers are not too common—indeed, one might almost say that they are rather scarce—hence we should make



A BEAUTIFUL GROUP OF DELPHINIUMS IN A BORDER OF MIXED PLANTS.

full use of these stately perennials, which embrace so many shades of blue. Fortunately, their cultivation does not call for any special skill. Good, generous diet and attention to a few details that I will mention are all that is necessary. Like every other plant that we undertake to grow, the Delphiniums well repay good cultivation, and for that reason the soil should be well and deeply dug, or, better still, trenched to a depth of 2 feet, and a liberal quantity of partially decayed manure thoroughly incorporated with it. Planting is best done in autumn, *i.e.*, from the third week in September until the end of November, or during February and March, or the first week in April.

For preference one would select autumn, as the plants then have an opportunity of becoming well established before flowering-time, which is usually June and July. As they are plants of goodly dimensions, overcrowding must not be tolerated, and from 2 feet to 3 feet apart is not too much space to allow.

The greatest enemy to Delphiniums, especially those that have been recently planted, is the ubiquitous slug. This insidious pest will, during the winter, scoop out the dormant shoots, and so ruin all prospects of flowers the following summer. It is important to remember this, because to it more failures can be attributed than to any other source. The remedy—a very simple one—is to

cover each plant with a 2-inch thick layer of coal ashes early in the autumn, and see that it is well worked down between the stumps of the old flower-stems.

Summer treatment consists in supplying copious quantities of water during dry weather, supplementing it once or twice a week with weak liquid manure, particularly a few weeks before the flowers open. This makes a wonderful difference in the size, and often the colour, of the blossoms. A 2-inch thick mulching of short stable or farmyard manure over the roots of the plants will also go a long way towards success, and is essential where the soil is at all sandy. It is not generally known that most Delphiniums will give a second display of flowers if properly treated. The *modus operandi* is to cut the flower-spikes down close to the ground as soon as the blossoms have faded, then thoroughly water the plants, and as soon as new growth is active, feed well with weak liquid manure and renew the mulching. If watering is persisted in during dry weather, secondary flower-spikes will soon be formed, and, although not so large and stately as those that opened earlier, will, nevertheless, be very welcome in the autumn months.

The simple operation of staking is, of course, necessary, and is only referred to here because it is so often badly done, the flower-stems being trussed to a stake so that they form a passable caricature of a Birch broom. Miss Jekyll has

adopted the most sensible plan that I know, and one that preserves the natural contour of the plants. Her method is to use natural sticks, such as are usually employed for supporting Peas, three or more of these being thrust into each plant so that the shoots can push their way up between the branches. Very little tying is necessary and the effect excellent.

Delphiniums from Seeds.—Although there are a great many named varieties listed in catalogues, a packet of seed, purchased from a first-class firm, will give a quantity of plants that are not very inferior, and which, for ordinary purposes, answer quite well. The seedlings are not difficult to raise.

The best plan is to sow the seed in shallow, well-drained boxes or pans of sandy soil during April, May or early June, and place them in a cool greenhouse or frame. When 1 inch or 2 inches high, the seedlings must be transplanted to a bed of finely pulverised and well-enriched soil, where, by the autumn, they will have made sturdy young plants that will give some good flowers the following May or June, though not so large as may be expected another year hence.

As Pot Plants.—At the last Chelsea Show some excellent Delphiniums were shown growing and flowering in large pots. For a large and not too much heated conservatory they would be ideal, and ought not to be difficult to manage. It would be necessary to pot up some strong crowns early in autumn, plunge the pots to their rims in ashes in the open or in a cold frame for the winter, and bring them into very slight artificial heat as growth commences naturally. Any attempts at hard forcing would, no doubt, end in failure. The following are some good named varieties that are not too expensive for general planting:

Belladonna.—An old variety with sky blue flowers, which are produced very abundantly. Height, 3 feet.

Christine Kelway.—A tall variety with sky blue flowers and white eye. Considered by many to be an improvement on Belladonna.

Langport Blue.—This is a white variety, 5 feet or more in height. Flowers rich bright blue and spikes bold and large.

Persimmon.—One of the prettiest of all. The flowers are clear sky blue, and are produced in abundance. The plant resembles Belladonna, but has a more robust constitution. Height, 3 feet.

Rev. W. Wilks.—Deep purple, flushed plum colour, with prominent dark eye to each flower. A superb variety. Height, 4½ feet.

Sir George Newnes.—A semi-double variety with beautiful cobalt blue flowers, the inner petals flushed plum colour. Very effective when massed. Height, 4½ feet.

Sir Walter Scott.—Deep rich blue, flushed violet, with prominent black eye or centre. Height, 4½ feet.

Althos.—Rich violet, flushed purple, with white centre. A most charming variety. Height, 5 feet to 6 feet.

King of Delphiniums.—Semi-double flowers of rich gentian blue, flushed plum colour. Each has a white eye that renders the whole very attractive. A strong-growing variety. Height, 4½ feet.

True Blue.—Perhaps the richest coloured of all the Delphiniums, the flowers being pure intense blue. It has a good constitution and grows from 5 feet to 6 feet high.

General Baden-Powell.—Soft lavender, tinted rose, with a brownish black eye. A very restful colour in the garden. Height, 4½ feet.

James Kelway.—Very rich violet blue flowers, each with a pronounced white centre. Very effective when massed. Height, 5 feet to 6 feet.

Princess Maud.—Unique in colour, which is sky blue, veined rose pink, each flower having a white eye. It is semi-double, and of fairly robust constitution. Height, 5½ feet.

Sir Trevor Lawrence.—Sky blue, with the inner petals flushed rose pink, white eye. Good constitution. Height, 6 feet.

Two varieties of more recent introduction, and consequently more expensive, are the Rev. E. Lascelles and Statuaire Rude. The first named has rich violet blue flowers, with

a pronounced white eye. It is tall and very erect. The second is a very stately plant, the large spikes standing well above the foliage. The flowers are a charming shade of soft lavender blue, with a slight flush of rose. They are semi-double and very large. H.

ANNUAL FLOWERS SUITABLE FOR CUTTING.

HOW to obtain a good supply of flowers suitable for cutting and at the same time study economy is a question of some importance in many gardens. As far as can be seen at the present time, there will be an even greater demand than usual this season, for added to the general home requirements will be those eagerly welcomed in hospitals and similar institutions. By making a free and judicious use of annuals, the difficulty is at once surmounted. The following list furnishes

into 3-inch pots and be planted out in May in a sunny position. There is hardly a finer decorative plant among annuals. The *Eschscholtzia*, too, is splendid, and is, I venture to remark, one of the coming annuals.

The need for careful preparation of the soil for such plants has so often been given in *THE GARDEN* that it is superfluous to add thereto. Staking of the annuals should be carried out sufficiently to prevent damage by wind and rain, but not one unnecessary band or stick should be used, as it is most inconvenient to have to wade through a mass of ties when gathering a supply of flowers.

Serlby Gardens, Bawtry.

H. TURNER.

THE HARDY PRICKLY PEARS.

THOSE who appreciate unusual features in the outdoor garden should grow those members of the Prickly Pear or Indian Fig family (*Opuntia*) which are practically hardy in this country. Being of a very succulent nature, they delight in a sunny position, and if a very hot site, where nothing else can be induced to



A BED OF VICTORIA ASTERS. THESE ARE GOOD ANNUALS FOR CUTTING.

ample material for selection: *Antirrhinums (medium and tall; best grown as annuals), Asters (annual, of sorts), *annual Carnations, Clarkias, Coreopsis, Cornflowers, *Cosmos, *Eschscholtzias, *Gaillardias (annual), Godetias, *Larkspurs, Lavatera, Lupines (annual), Mignonette, Nigella, Salpiglossis, Shirley Poppies, *Stocks, Sunflowers, Sweet Sultan and the indispensable Sweet Pea. Those marked with an asterisk should be sown under glass, while the remainder, if desired, may be sown where they are to grow and flower, or in a seed-bed in the reserve garden, to be afterwards pricked out in their permanent quarters. Exceptions to this mode of treatment are the Lavatera, Mignonette and Poppies, which are generally impatient of shifting, so should be sown in their flowering places. The great usefulness of the Antirrhinums, Asters, Clarkias, Godetias and Larkspurs for cutting is fully recognised, but it is doubtful whether Cosmos and the *Eschscholtzia* receive the attention they deserve. An early flowering strain of the former should be chosen, and the seedlings potted singly

grow, is available, the *Opuntias* will be likely to do well there. At Kew they are grown in a recess of the Palm House which faces south, and is, of course, sheltered from the north and east winds. In addition to this there is always a little warmth from the wall of the house, and under these conditions the plants seem quite happy. In all except the warmest localities, however, it will be advisable to so construct the bed that a glass light can be placed over it during the worst weather in winter, a lot of rain, followed quickly by hard frosts, greatly injuring the plants. Generally speaking, a low, roughly constructed rockery is best, as by this means thorough drainage, which is most essential, is secured. A suitable soil is composed of good turfy loam two parts, crushed bricks and sand one part each, the whole to be used in a moderately rough condition. Planting is best done in spring, as the plants then have an opportunity of becoming established by the following winter; but the preparation of the bed may be attended to now. The following are a few that should do well under

the conditions described: *Opuntia camanchica* albispinia, *O. Engelmannii*, the Indian Fig, *O. Ficus-indica*, *O. missouriensis* and varieties, *O. Rafinesquii* and its variety *O. R. arkansana*, and *O. pachyclada rosea*. H.

NEW AND RARE PLANTS.

AWARDS OF MERIT.

Crocus biflorus Alexanderi.—A charming variety in which the outer segments of the flower are wholly of a shining chocolate colour, save for a narrow margin of white. The remaining segments are bicoloured, the larger upper half being pure white. Internally the petals are white. It is very free and profuse flowering.

Crocus Imperati albiflos.—

Next to *marathonisus* we consider this the finest white-flowered variety found among autumn or winter flowering Crocuses. The fully expanded flower is pure white, with orange-coloured stigmata. Externally the outer segments are yellowy buff and faintly lined, the lines appearing to penetrate to the inner surface of the flower. One of the largest, most exquisite and free flowering of its race.

Crocus biflorus Lemon Queen.

The great charm of this variety lies in the distinctive cream-yellow of its flowers, a shade of colour of exceptional rarity, wedded to roundly obovate petals. Externally, at the base the flowers are marked by a faint suspicion of purple colour. The whole of these were exhibited by Messrs. Barr and Sons, King Street, Covent Garden, W.C., the well-flowered examples constituting a great attraction.

Primula malacoides Rose Queen.—

Quite the most charming and distinct variation of this Chinese species, which has gained popularity as much by reason of its simple cultural requirements as by its freedom of flowering and elegant habit. The new-comer is of a rosy carmine shade, very pronounced and beautiful. In the examples shown, a greater vigour than that of the type was apparent. From Mrs. Denison, Little Gaddesden, Berkhamsted (gardener, Mr. A. G. Gentle).

Odontioda Patricia (*O. Phoebe* × *O. Charlesworthii*).—The flower is wholly coloured a dark, glossy maroon, the lip pronouncedly tipped pale yellow, with yellow feathering at the centre. A handsome and distinct form. From Messrs. Charlesworth and Co., Hayward's Heath.

Cymbidium Schlegelii Fowler's Variety (*C. wiganianum* × *C. insignis*).—The sepals and petals are of a pleasing rose pink, lined with white; lip white, irregularly and copiously marked with crimson spots and stripes. From J. Gurney Fowler, Esq., Pembury, Kent (gardener, Mr. J. Davies).

Odontoglossum sandhurstiana.—Exhibited by C. J. Phillips, Esq., The Glebe, Sevenoaks. We were unable to locate this novelty.

The foregoing were exhibited before the Royal Horticultural Society on February 16, when the awards were made.

SEASONABLE NOTES ON VEGETABLES.

Rhubarb should be replanted where the roots are becoming exhausted, especially where they have been partly forced by the aid of manure.

around the roots with long strawy manure. The Sutton is an excellent variety for the main crop. Dawe's Champion, Champagne and Mitchell's Royal Albert are good varieties to add.

Spinach should be sown in a cold frame for an early supply, as it is too early yet for an outdoor sowing to be made. The cold rains to follow, combined with frost, are all against the progress of the tiny seedlings; but in a cold frame the plants are immune from these drawbacks and grow away freely, giving an early supply of succulent leaves.

Turnips may be sown in a frame on a slight hot-bed about the third week in the month. White Milan, Red Milan and Early Gem are desirable sorts.

Tomatoes.—Pot on the autumn-sown plants, giving them a liberal shift, and keep close to the glass to induce sturdy growth. Do not give too much water; just enough to keep the roots in a progressive condition. Make another sowing now of maincrop varieties for growing under glass. Princess of Wales, Satisfaction, Perfection and Sunrise are good in the red-skinned section. Golden Perfection and Golden Nugget are good yellow varieties.

Parsnips must be sown directly the soil is in a fit condition. Should it remain wet for some time, for the early crop and best roots boards should be used to stand upon, so that sowing the seed will not be too long delayed, as Parsnips require a long season of growth. Bore holes 3 feet deep, 15 inches apart in rows of the same distance, with an iron bar, filling the holes with fine soil. Nothing is better than old potting soil, as the seedlings grow away quickly from the start, and, being free from stones or large clods, the Parsnips grow with one tap root to the bottom of the hole, the roots coming out quite clean and straight. In the ordinary way, in stony or stiff soil, even if trenching is done, the roots all too often grow forked and short. By the boring method the roots are certain to be long and straight, and, even if not required for show, they are all the better for home use, as so much heavier a crop is assured.

Lettuce may be sown in frames over a slightly heated base to provide plants for putting out early or for leaving in the frames to grow quickly, to be used in a small state for salads. Boxes of sandy soil in a cool house will provide a batch of later plants of a sturdy character if, after the seedlings appear, the plants receive a light position in a cool temperature. Both Cos and Cabbage varieties should be sown.

Shallots must now be planted in a sunny site. A south border suits them admirably if such can be spared. They succeed in the open providing the ground was deeply dug in the autumn and



PRIMULA MALACOIDES ROSE QUEEN, A BEAUTIFUL NEW VARIETY WITH RICH ROSY CARMINE FLOWERS.

Where new varieties are to be added, a thorough overhauling of the roots should occasionally be made. The site selected for a new plantation, or the old if this is to be continued, must be deeply trenched and heavily manured. For the large-growing varieties like *Victoria* the rows should be 5 feet wide and the plants 4 feet apart. Smaller-growing varieties like *Early Scarlet* will succeed with less space. Divide the old crowns into pieces about six inches square, selecting the outer parts. When planting, place about the roots some fine compost, such as decayed leaves, vegetable refuse, or old potting soil. Mulch the surface afterwards

now forked over during dry weather, raked down and made fairly firm. The giant-growing sorts require a space of a foot between the rows and 10 inches in the rows. Smaller-growing sorts require a couple of inches less. Press the bulbs into the soil about two-thirds of their depth. Sprinkle wood-ashes or burnt earth over the surface afterwards.

Cabbage.—Seed should be sown in cold frames to provide plants to succeed those put out in the autumn, selecting varieties like Little Gem and The Earliest.

Cauliflowers may be treated in the same way for an early batch of plants. Sturdy growth, by giving ample space, is the chief aim in this early batch, as drawn-up, weakly plants have a poor chance when exposed to cold April and May winds.

Celery for the earliest crop in August should be sown, just a pinch of seed in a box of sandy soil in gentle heat, potting on the plants as they progress.

Vegetable Marrows for an extra early crop, say, in May, should now be sown in a brisk heat separately in small pots, transferring the plants to larger pots as they require more rooting space. Keep the plants as close to the glass as possible to avoid the growth being drawn up weakly. Tie the leader to a stake, allowing it to grow away uninterrupted. Pinch out the points of the side shoots one leaf beyond the blossoms, which should be fertilised to ensure greater success.

Swanmore.

E. MOLYNEUX.

JOHN EVELYN.

SOME HISTORICAL NOTES.

THE author of "Ecclesiasticus" opens his list of national heroes with these pregnant words: "Let us now praise famous men and our fathers that begat us. The Lord hath wrought great glory by them, through His great power from the beginning. Such as did bear rule in their kingdoms, men renowned for their power, giving counsel by their understanding and declaring prophecies: Leaders of the people by their counsels, and by their knowledge of learning meet for the people; wise and eloquent in their instructions." Tried by this test, the name of John Evelyn deserves to be placed on our roll of national heroes. And yet possibly few know more about him than that he was a great gardener who kept a diary, and whose beautiful home at Sayes Court, near Deptford, was occupied by the famous Peter the Great of Russia when he visited England to learn how to build ships, this last fact being imprinted on the popular mind by the tales of how one of his favourite amusements was to be wheeled in a wheelbarrow about the garden and through the hedges of which Evelyn was so proud. How far this is literally true will never be known, but that it was not all smoke is proved by the amount of damage done to the garden in his three months' stay, being assessed at £150. Undignified forms of locomotion seem to be attractive to rulers; for I was told when I was in Morocco City that the then Sultan took great pleasure in being driven about his grounds in a London twopenny 'bus.

As is so frequently the case, the picturesque tales only are remembered, and the reality or that which really matters is cast aside and forgotten. So it has been with John Evelyn. The wheelbarrow episode has become current coin;

his great work for the British Navy is all but unknown. Who, then, was this man, and what did he do, and why should he be remembered? Evelyn was a widely travelled, deeply thoughtful, keenly observant country gentleman who lived in the times of the Stewart kings and Cromwell, right through the reign of William and Mary until the days of Queen Anne, when he passed away in his eighty-first year.

He had the happy knack of being able to put two and two together, and the faculty of being able to impart his knowledge in a pleasing and readable manner. The long and varied list of his writings, which may be found in the "Dictionary of National Biography," is an eloquent testimony to his versatile intellect and his wide interests.

SYLVA, OR A DISCOURSE OF FOREST-TREES, AND THE Propagation of Timber

In His MAJESTIES Dominions.

By J. E. Esq.

As it was Deliver'd in the ROYAL SOCIETY the xvth of October, C1610CLXII. upon Occasion of certain Quarries Propounded to that Honourable Assembly, by the Honourable the Principal Officers, and Commissioners of the Navy.

To which is annexed
POMONA; OR, An Appendix concerning Fruit-Trees in relation to CIDER The Manner and several ways of Ordering it.

Published by express Order of the ROYAL SOCIETY.

ALSO
KALENDARIVM HORTENSE; OR, Gardners Almanack:
Directing what he is to do Monthly throughout the Year.

Tibi res antiquæ laudis & artis
Ingredient, cunctis ausis includere fontibus. Virg.



LONDON, Printed by J. Moxon, and J. A. Bell, Printers to the Royal Society, and are to be sold at their Shop at the Bell in S. Paul's Church-yard, MDCLXIV.

THE TITLE PAGE OF THE FIRST EDITION OF EVELYN'S FAMOUS WORK "SYLVA."

Gardening and forestry were the passions of his life. Again and again in his Diary and other works he refers to these subjects, and thus incidentally we get not only an index of his own individual tastes, but also many incidents and allusions of great historical value, as, for example, when he describes the Brompton nursery of London and Wise as "the greatest work of the kind ever seen, or heard of, either in Books or Travels"; or refers to Sir T. Brown's garden at Norwich as a "paradise of rarities," and to Sir William Temple's at East Sheen as a model of good cultivation, or how he fixes the date for the introduction of Pine-apples by his record of his having tasted the first, which was presented to King Charles in 1661.

Switzer, a celebrated gardener and writer of those days, speaks of Evelyn as being another Virgil, who "was appointed for the retrieving the spirit of his countrymen for their planting and sowing of Woods,—to him it is owing that Gardening can speak proper English." It was this that has made him so justly celebrated, and which in our present distressing times give him an interest which in more peaceful days we might pass over. No one has ever done more for the British Navy than this man did by his giving "counsel with understanding," and by the "wise and eloquent instructions" which he gave to the world in his *magnum opus*, "Sylva, or a Discourse of Forest Trees, and the Propagation of Timber in His Majesties Dominions," which first saw the light of day in 1664. The history of the book is as follows: Somewhere about the year 1662—soon, that is, after the restoration of the monarchy—the authorities responsible for the well-being of the Navy became aware that the forests and woods had become seriously depleted, partly owing to the increase of shipbuilding, and partly and more especially owing to the spread of various manufactures. What was to be done? In their difficulty the Commissioners of the Navy applied for advice to the newly formed Royal Society. They, naturally, turned to Evelyn, who was well known for his knowledge of all things pertaining to horticulture and planting. The result was that he addressed his fellow-members on October 15, 1662, advocating extensive planting of timber trees throughout the kingdom. This "discourse" he expanded and issued in book form in the early part of 1664, under the title of "Sylva."

The title-page of the first edition of this famous work is here reproduced. It will be noticed that bound up with it are "Pomona," or a discourse about cider, and the "Kalendarium Hortense," or monthly notes on what should be done in gardens. This last item is memorable as being of the earliest forerunners of the now never-omitted "Work for the Week" columns of the gardening weeklies. The result of the address and the publication of this was instantaneous. In the 1678 edition he is able to state in his dedication to the King that "many millions of timber trees, beside infinite others, have been propagated and planted throughout his vast dominions at the instigation and by the sole direction of this work."

A hundred years later (1776) Hunter, in his preface to his famous illustrated edition of the "Sylva," states that "there is reason to believe that many of our ships, which in the last war gave laws to the whole world, were constructed from Oaks planted at this time." He adds: "the present age must reflect upon this with gratitude." Needless to say, we do the same to-day, for if the oaken walls of old England have passed away and given place to iron, the maintenance of our Navy has always been of paramount importance to the British Empire. A few words in conclusion to enable readers to form an idea of its contents. Both useful and ornamental trees are included. Their uses are defined. Interesting bits of historical information are recorded. The management of the seminary, the management of copses, the infirmities of trees, and the laws and statutes for the preservation in improvement of woods are enumerated. Seasoning of timber, pruning, and many other topics are dealt with, the whole forming even now a most interesting and readable volume, and one which, I venture to think, every Britisher should know about.

JOSEPH JACOB.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Planting One Year Old Vines.—It is too early yet to plant Vines, but the new border will be all the better if made several weeks before the Vines are ready to plant, which is just when they are breaking naturally into growth. The whole of the old soil should be removed, and, while the house is empty, the opportunity should be taken to paint the woodwork and trellis. In making the new border, see that ample drainage is provided, and to ensure the porosity of the soil mix plenty of broken bricks and charcoal with it. Use artificial manures with caution. Crushed bones or a special Vine border compound will provide ample food for the young Vines if the soil is good. A border about four feet wide will be sufficient for the first two years. For early Vines a depth of 2 feet 6 inches is ample, but late Vines should be allowed a little more.

Late Vines.—The starting of late Vines must be governed more or less by local conditions. From the beginning to the middle of March will usually be found late enough for such varieties as Lady Downe's Seedling, Gros Colmar and Lady Hutt. Alicante and Appley Towers do not require quite so long to ripen their fruit, and this fact should be borne in mind when planting a house of late Grapes. If mealy bug is present, both Vines and vinery must be thoroughly cleansed. The loose bark must be removed from the rods. Afterwards thoroughly scrub them with hot soapy water two or three times.

Outside Fruit Borders.—To encourage roots near to the surface, outside borders require their annual top-dressing just as much as inside ones. The old soil should be first removed down to the roots, replacing it with fresh chopped loam, brick rubble, crushed bones and wood-ashes.

Plants Under Glass.

Chrysanthemums.—Pot on young plants before they become pot-bound. They like a fairly rich compost, which may consist chiefly of loam, leaf-soil, wood-ashes and sand. Pot firmly and keep them growing near to the glass in a cool house. Fumigate occasionally to keep them free from aphids.

Clivias.—These will now be pushing up their blossoms, and should they be required to flower early, they may be placed in a warmer house. Give them plenty of stimulants now in order to put colour and strength into the flowers. Any repotting necessary may be done after flowering.

Begonia Gloire de Sceaux.—When well grown, this makes a handsome specimen. The plants will be passing out of flower, and attention must now be directed to the propagation of a new batch of plants. Slightly cut the old ones back and place them in a warm house, where they will make young growths suitable for cuttings.

Coleus Hybrids.—Seeds may be sown now for raising a batch of plants for a summer and autumn display. A batch of cuttings may also be inserted.

Bouvardias.—These may be propagated by dividing the roots and laying them in pans or boxes filled with sand. Pot up the young plants into 3-inch pots as soon as they are large enough.

Sowing Seeds.—Seeds of Gloxinias, Streptocarpus, Celosia, Francoa, Clerodendron fallax, Primulas for autumn flowering, and various annuals for flowering in pots may be sown now.

The Flower Garden.

Pentstemons.—Sow seeds of these now in boxes in a light compost. The resultant plants will flower in the late summer and autumn. Plants raised from cuttings last autumn will be the better for a shift either into pots or to a bed of soil in a cold frame. Pentstemon barbatus is an excellent plant for providing flowers for cutting, and a batch of plants should be grown specially for this purpose. These may be increased now by division of the roots.

The Woodland Garden.—Any work requiring attention in this part of the pleasure grounds should be attended to at once, so that there will be nothing to interfere with the early spring effects. Any surplus herbaceous plants which

are suitable for massing in the wild garden, such as Senecio Clivorum, Chrysanthemum maximum, Helianthus, Doronicum, Lythrum, Erigeron, Epilobium, Pyrethrum, perennial Asters, and Solidagos, should be made use of. Foxgloves, Physalis and Honesty are most suitable subjects for naturalising in the woodland garden.

Herbaceous Lobelias.—The plants which have been wintered in boxes in frames may now be divided and potted up. Place them in a heated pit for a few days to encourage root action, after which they may be returned to a cold frame.

The Hardy Fruit Garden.

Outdoor Vines.—If these are not already pruned, no time must be lost in doing so. If the planting of Vines outdoors is contemplated, a warm, sheltered position must be selected and a well-drained rooting medium prepared for them.

Spraying Fruit Trees.—The advantages of spraying fruit trees are now universally recognised. The work may be done any time now before the trees burst into growth. Dull, windless weather with the temperature above freezing point is most favourable for this operation.

The Kitchen Garden.

Mushrooms.—The manure for making the beds must be collected in a dry shed. Turn the heap every two or three days to allow the rank gases to escape. Mushrooms may be easily grown in a dark shed after this date, but the bed must be covered with a good coating of clean straw.

Potatoes.—The tubers which are lying in a heap in a shed will be better if overhauled. Carefully look for those which are tainted. During mild weather admit as much air as possible to the shed. A small plantation may now be made on a sheltered border.

Radishes.—Small sowings of these must still be made in frames to keep up a supply.

Turnips.—To be on the safe side, it is a good plan to make two or three sowings for an early supply. As soon as the young plants are through the soil, lightly dust them with wood-ashes and soot.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

The Flower Garden.

Filling Up Blanks.—Wallflowers and other spring bedding plants will now be starting to grow, and where any deaths have occurred, the blanks should be filled up with plants from the reserve garden.

Herbaceous Borders.—Even with manuring and the annual fork over, these borders require periodical overhauling. It not only gives an opportunity for trenching and adding a quantity of good manure, but most of the plants benefit by being split and replanted; especially is this the case with such herbaceous plants as Michaelmas Daisies. Some plants, however, are more impatient of disturbance, such as Pæonies, Lupines and Papavers. These should, if possible, not be disturbed during the trenching of the border. Old plants of Phloxes are best discarded and replaced with young plants which have been propagated from cuttings. Notes having been made of plants which were not quite suitable for the positions they occupy, substitutes may be put in when replanting.

Early Flowering Chrysanthemums.—A start should be made with the propagation of these. Young stock is always the most satisfactory. Cuttings are very easily rooted, either with or without bottom-heat. A simple mode is to dabble the cuttings closely together in boxes of sandy soil, deep enough to allow the cuttings to be covered with glass, until they are rooted.

Bedding Geraniums.—Where plants have been wintered several in a pot, or in boxes, a start should now be made to pot these up singly. They benefit from a close, warm house for a time after potting; a Peach-house or vinery suits them well. They should, however, be removed before the foliage

of fruit trees becomes dense, or the plants quickly become weak and drawn.

The Kitchen Garden.

Tomatoes.—The early sown batch of plants are now ready for potting into 6-inch pots, and it should be seen that no time is lost in doing this. A small quantity of fertiliser may be added to the compost for this potting.

Early Cabbages.—Any blanks should be made good as soon as the condition of the soil permits. A small application of nitrate of soda around each plant will encourage a quick growth. After removing any large weeds, the ground should be gone over with the Dutch hoe.

Onions which were sown under glass some time ago must now be pricked out singly, allowing 3 inches between the plants. Use for the soil good loam and leaf-soil, with a good sprinkling of wood-ashes and sand. After pricking out, they may be kept in a genial growing temperature for some time until they have got a good start; afterwards they should have cooler treatment.

Celery.—A small sowing can be made now if an early supply is required, taking care to see that the soil in which the seed is sown is kept moist. Boxes are most convenient for this sowing, and should be placed in heat until the seed has germinated.

Plants Under Glass.

Impatiens.—Seed sown now of this subject will produce flowering plants for making the greenhouse gay in July and August. The Holstii hybrids are of a glowing orange scarlet, while the variety Sultani is pink. Sow in a fairly brisk heat, then grow in an intermediate temperature.

Fuchsias.—Plants that have been resting ought now to be pruned, and any requiring repotting should have attention. A warm greenhouse is best in which to start them, and they must be regularly syringed during bright weather until growth is well advanced.

Palms.—To keep them in good condition, all Palms must be overhauled at this season. Large specimens do not require a change of pot for several years, while younger plants need larger pots as the Palms develop. Any not in need of repotting may have the spent surface soil removed and top-dressed with some new compost. In all cases the drainage of each pot should be examined. Clear soot-water is perhaps the best fertiliser for keeping Palms in that healthy dark green colour so much desired by growers.

Achimenes.—Whether used for baskets or growing in pots, the bulk of these should now be started to get a good display in summer. The corms of some varieties being very small, great care is needed when picking them out of the old compost. The soil for growing these plants should contain a large percentage of peat, leaf-soil and silver sand.

The Hardy Fruit Garden.

Strawberries.—After being cleared of any weeds which may be growing, the plantations should be lightly forked over, adding a light dressing of bone-meal or some fertiliser as the work proceeds. Any blanks among young plants should be made good before they commence to grow.

Orchard Trees.—All ground in which fruit trees are growing, if not already done, ought now to be forked over, after having received some well-decayed farmyard manure or, failing this, some artificial fertiliser. The forking of the ground near the trees should be very light, and the use of the spade is to be condemned.

Gooseberries.—The pruning of any bushes which was purposely delayed, in view of possible attacks from bullfinches, ought not to be delayed much longer, now that the buds are showing green. All branches that are lying low on the ground should be removed, as any fruits produced on these are very liable to be splashed with soil during heavy rains. The rest of the pruning will largely depend upon how the remaining branches have been attacked. Those which have few buds remaining are best removed altogether.

JOHN JEFFERY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

HINTS ON PRUNING ROSES.

It is, of course, too early to prune the general collection of Roses, but there are certain groups which can be pruned now that will lessen the labour a little later, when so many calls are made upon one's time.

Take, for instance,

Rose Hedges.—Old wood may be freely removed, and if growth has become rather bare at the base, a shoot or two upon each plant may be cut down nearly to the ground. The final shortening of the annual growths should be deferred for another fortnight. Some good farmyard manure dug in on both sides of the hedge will be well repaid during the summer. It is not wise to allow these Rose hedges to become too dense in the matter of growth, for then they make a capital lurking place for many foes, and thus prevent birds from detecting their presence.

Old-Fashioned Roses.—In many gardens, no doubt, there are still grown the old-fashioned Gallica, Hybrid Chinese and Moss Roses. Such may be pruned now. Here, again, old wood may be cut away freely, but I do not advise a too severe pruning of the last year's wood if a quantity of bloom is desired. Indeed, I have seen this type of Rose left practically unpruned, and the branches have been smothered with bloom. Of course, this would not do each year, otherwise we should have very little new growth of any strength, and the plants would deteriorate. It is a good plan to prune some plants severely and leave some unpruned each year, taking care that those unpruned one year are pruned hard the next.

The Briar Family.—Practically all the Briar family require very little pruning, except to free them of some of their old wood. In these we can copy the wild Roses of the hedgerows, which give such a glorious display from their last summer's growths, whereas the older growths, all studded with short twigs, are never so beautiful. Most of the Rose species are best left alone, except for a slight thinning out of the oldest growths. All this work may be done now, and the plants assisted by forking in manure around them.

Rambler Roses, as is generally known, receive their chief pruning soon after they have bloomed; but it may be that from circumstances beyond our control this work has been neglected. If so, cut away at once a good lot of the oldest wood. This applies more especially to the multiflora section, as this group certainly flowers best from the one year old wood. Supposing there is not a goodly number of one year old growths, then some of the previous year's shoots may be retained, and even older growths that sent out good young shoots last summer may be also retained another year for the sake of the younger branches, which should be shortened a little about the middle of March. The old wood of wichuraiana Roses retains its vigour for several years, and if large spaces are to be covered, there is no reason to remove it; but where these Roses are grown in restricted places, then it is much better to cut away old wood freely and tie up the young growths. Those fine pot-grown specimens seen at the Chelsea Show have rarely more than three or four one year old growths, which yield the glorious big clusters.

Weeping Roses may be thinned now of old wood, although in their case the work is best done in August. As I go about I see huge heads to these weepers, with a dense mass of twiggy

growths. If such had been well thinned and long, drooping growths encouraged, they would have been far more effective.

Roses on Walls may be pruned about the first week in March. The new wood that is well matured should be laid in wherever possible, and some old wood cut away. Healthy old wood bearing sound laterals may be retained and the latter shortened, the weakest to two or three eyes, and those stronger to 1 foot or 2 feet or more in length. Where wall Roses have become bare at the base, this may be remedied by taking down the plant and, carefully bending it in a zigzag fashion, fasten it to the wall in this position. It needs much care to prevent breaking; but if the bends are made carefully, in course of time new shoots will emerge from them. Roses on sunny walls having a glass coping should have what growth it is necessary to remove cut away at once, but this ought to be very slight. Roses of the type of Marie van Houtte yield a glorious quantity of buds if grown under such conditions, and they require very little pruning.

Budded Stocks.—Stocks that were budded last summer should be cut back at once. Standard Briars should have the side growths that contain the buds cut back to about three inches from the bud, and all other side shoots that have no bud must be cut close to the stem. The top of the Briar should also be cut back close to the topmost lateral growth. To prevent damage by the sawfly laying its eggs in the pith, it is a good plan to smear over some painter's knotting or liquid grafting wax. Dwarf stocks, such as seedling Briars, Briar cuttings, Manetti, &c., should have their tops cut off now to within an inch at most of the inserted bud. I prefer to cut as close to the bud as possible. Bamboo canes should be placed close to the stocks at once to mark their position, as it is advisable to lightly dig over the surface as soon as the weather permits. Do not allow the buds to be covered up with soil. The more they are exposed, the harder they will be. Any buds which shot out during last autumn should be cut back to their base. Where pot Roses are grown, there will doubtless be a batch of plants left for later crops. These should be pruned now and placed in a pit ready for removal to the forcing-house when desired. Roses potted up last October may be pruned during the next two weeks, and if pits are available, let the plants be plunged therein. Such plants give blooms fully a month earlier than those outdoors, and the steady growth made in the unheated structure just suits them. The plants are plunged outdoors after flowering, and make splendid material for earlier forcing another season.

Polyantha Roses are now largely employed for summer bedding. Many gardeners find it best to bring on the plants in pots in cold frames, and either plunge them in the beds to follow the bulbs or plant them out as permanent bedders. By having a batch of plants plunged in their pots for the summer, we thus may use the same plants in the forcing-house the next winter, where they make most delightful subjects for conservatory decoration.

DANECROFT.

BOOKS.

Gardener's and Florist's Annual for 1915.—

Although this is an American publication, we think gardeners and nurserymen in this country will find it a very useful handbook for reference. It is one of the best compiled books of its kind

that we have seen, and the business section, devoted to such subjects as banking, insurance, exporting and importing, is invaluable to commercial men and women. The hints and recipes are concise and good, and many of them would be applicable in this country. For instance, fumigating with hydrocyanic gas for the purpose of destroying mealy bug and other insects in greenhouses is a subject about which too little is known among gardeners here, but full particulars for its use are given on page 124 of this book. The agents for the publication in this country are Messrs. Pearson, Lowdham, Notts, from whom copies can be obtained, post free, 2s. each.

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

Offices: 20, Tavistock Street, Covent Garden, W.C.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

PLANTS FOR MIXED BORDER (Headley).—In view of the great wealth and choice of hardy plants to-day, we should eliminate the following numbers from the list: Nos. 3 and 4, desirable enough, but tender and rarely a success; No. 5, quite unsuitable; No. 7, inferior species; No. 10, unsuitable; Nos. 12, 13 and 15, of third-rate merit; No. 16, better in the rock garden; Nos. 18, 20 and 21, suitable only for the rock garden; No. 22, we do not know. Of the remaining seven kinds between, Nos. 1, 8 and 15 would require a 6-feet high stake; No. 9, a space of 2 feet to develop its ornamental leaves; while all would do in the soil you mention. Nos. 1 and 2 are interesting rather than very showy, and neither is long-lived. No. 9 is highly ornamental when established, and No. 11 the best flowering plant in like circumstances. No. 19 should be planted, a dozen or a score of single pieces, at 1 inch or 2 inches asunder to form a group. Nos. 18 and 20 are increased by seeds and by the division of their tiny scaly bulbs when at rest. No. 21 may be propagated by means of "heel" cuttings in June and by seeds when these are available.

GARDEN BED AND CLIMBERS (H. A. Pryer).—As the front garden abuts on the main road and trams and buses are frequent, we think the Cannas would not be much of a success unless you keep them free from dust. The Stocks might gather more dust than these because of their woolly leaves, and probably Godetia or Snapdragons would render equal service if less fragrant. If you know the colours of the Cannas, you might select Snapdragons for either harmony or contrast, and the plants are easily grown and free flowering. A particularly good plant for such a bed, though it might compete with the Cannas at flowering-time in your case, is Salvia Glory of Zurich, vermilion scarlet. Better than all, perhaps,

since you lean to "dot plants of Cannas," would be to plant and peg down on the surface of the bed pink Ivy-leaved Pelargonium Mme. Crousse or Heliotrope President Garfield, the former very charming in colour, the latter ideally fragrant, and both very profuse flowering. For the back garden, if the positions near the Poplars were prepared, all the climbers save the Tropaeolum would, we think, succeed. Much depends upon the length of time the trees have occupied their places. For the Tropaeolum about half the bulk of soil should be replaced by leaf-mould and sand, while for the others a considerable addition of light material would be a great gain. None of the plants named takes kindly to clay at the start.

PLANTING FLAG IRISES (*Namptwyche*).—The best planting season for these is March - April, and you will not go far wrong if you follow the dictum of Mr. E. H. Jenkins as laid down in "The Hardy Flower Book," since few men have so wide a practical experience as he of these and allied subjects. The selection given by you is very good so far as it goes. It would be more complete if you added Chelles (yellow and bronze), Dr. Bernice (smoke and bronze crimson), Victorine (white, purple splashed) and Princess of Wales (white, very early). The typical pallida is also worth adding; it is so compact and free, and distinct from all. The difference of price is often governed by the stocks held, though occasionally also by the quality of the plant; but 20s. per dozen for dalmatica and 15s. per dozen for Queen of May are excessive. At the same time it is best to pay a reasonable price. The firms named would be regarded reliable and, indeed, some of them specialise in this fine race of plants.

TREES AND SHRUBS.

PRICE OF TIMBER (A.).—There is no fixed price per cubic foot for English timber; the price varies considerably, both from time to time and in different places. A few days ago in adjoining counties a difference of 8d. per cubic foot occurred in the price of Oak timber at auction sales, so much depending upon the quality of the timber, quantity of each kind, conditions of extraction and local demand. The price certainly has shown an upward tendency of late, but not to any marked degree. For good timber the following prices per cubic foot may be expected: Larch, 1s. to 1s. 2d.; Scots Pine, 6d. to 8d.; Oak, 1s. 8d. to 2s. 6d.; Ash, 1s. 9d. to 3s.; Sycamore, 1s. to 2s. 6d., according to size and freedom from knots; Elm, 9d. to 1s. 2d.; Sweet Chestnut, 1s. 3d. to 2s.; Beech, 6d. to 1s. 9d.; Poplar, 8d. to 1s.; Alder and Birch, 6d. to 9d. Your best plan will be to grade your timber into suitable lots, keeping the good timber of each particular variety together, and the wood of inferior quality in separate lots. When good and bad timber are mixed, the price is often decided by the poor instead of the good timber. When you have lotted all your timber, either sell it by auction or invite tenders from several different people. You must make it quite clear that your liability ends in the sale of the trees, and you ought to stipulate that the timber shall be removed and any damage to fields, gates, fences or roads made good within a specified time. If the timber is fit for pit props, you may be able to dispose of it to a colliery if there is one in the vicinity.

HINTS ON PRUNING SHRUBS (*H. Lefroy*).—By the purple-flowered Buddleia we infer that you mean one of the varieties of *B. variabilis*. That being the case, you may cut last year's shoots back to within two or three buds of the base at once. The orange-flowered Buddleia (*B. globosa*) does not require regular pruning, but if bushes are becoming overgrown they may be pruned back fairly severely as soon as the flowers fade. The winter-flowering Honeysuckle does not require regular pruning, but if the bushes become very dense some of the inner shoots can be cut away as soon as the flowers fade. These three plants may all be given a surface-dressing of well-decayed farmyard manure in May, or you may, if you so wish, give two or three applications of liquid cow-manure during the growing season. *B. variabilis* varieties are benefited by a good surface-dressing of cow-manure each year. *Magnolia stellata* may be left unpruned. Providing it is healthy and fairly vigorous it does not require feeding heavily, but may be given a surface-dressing of decayed manure and leaves. Should a plant appear to be sickly, lift it in April and replant in sweet, well-drained soil containing a little leaf-mould and peat. The different kinds of Heaths require no other pruning save the removal of the flower-heads as soon as the flowers fade. The best food material is a top-dressing of well-decayed leaves. It is a mistake to begin feeding with strong manures, for if the soil is only moderately good it will grow good Heaths, providing it does not contain lime. Heaths may be increased by seeds, cuttings or layers, cuttings being a very popular way. They are made of quite tiny side shoots, 1 inch to 1½ inches long, in July or August, and are dibbled into pots of firm sandy peat and stood in a close, slightly warm or cold, shaded frame until rooted. They are then planted out in a border or cold frame about two inches apart each way, and the points of the shoots are removed occasionally to induce a bushy habit. At the end of the first year they are transplanted and given more room, and when two years old they can be planted in permanent positions. Layering is practised during the spring and early summer, the branches being weighted down into light soil by means of stones, and left two years before removal. The young plants are then placed in nursery quarters for a year prior to permanent planting. Seeds are sown in pots or boxes of fine peaty soil as soon as ripe, or in the following spring. They are kept beneath glass until seedlings appear. These, when large enough

to handle, are pricked out in boxes and treated eventually in the same way as rooted cuttings.

ROSE GARDEN.

MILDEW ON ROSES (*P. T.*).—We think you will find potassium sulphide (liver of sulphur), dissolved at the rate of 1oz. of the liver of sulphur to three gallons of water, and sprayed on at intervals of about a fortnight in the evening or early morning, a check to the spread of the mildew, though nothing will stamp it out altogether, we fear. Pruning away affected parts in March and April will be a useful method also to adopt. Take care that the liver of sulphur is fresh and has not been exposed to the air. Seride is a good proprietary article for destroying mildew. See reply to *S. Clements*.

MILDEW ON POT ROSES (*S. Clements*).—Undoubtedly one of the best remedies both for indoor Roses and those outside is Seride. You can obtain this from Messrs. M. Gleeson and Co., 41, High Street, Watford. Give the Roses a good spraying with this preparation, and we think you will find it will destroy the fungus, only, of course, you must continue to spray at intervals, as mildew is constantly showing itself upon the young, tender foliage of Roses.

THE GREENHOUSE.

CULTIVATION OF VARIOUS PLANTS (*F. B. L.*).—*Veltheimia viridifolia*.—This bulbous plant should, after flowering, be watered as before, until the leaves begin to turn yellow, which is not likely to be for some time yet, for the plant has to make its growth ready for another season. Annual repotting is by no means necessary; but if in your opinion the plant needs a shift, this should be done directly the flowers are over. A compost made up of two parts of loam to one part of peat or leaf-mould and a liberal sprinkling of sand will suit this *Veltheimia* well. On no account should the plant be knocked out of the pot to ripen; in fact, it must be allowed to ripen off gradually and naturally. Should you decide not to repot it, an occasional weak dose of guano or Clay's Fertilizer will be beneficial. As the plant goes to rest, it should be given just enough water to keep the soil from becoming parched up until signs of growth are again manifest. *Streptosolen Jamesonii*.—Presumably this is in a pot in the greenhouse. If too straggling, last year's wood may be cut back sufficient to form a shapely specimen. This will lead to young shoots being pushed out, and as soon as these are about half an inch in length, the plant should be repotted. In carrying out this, as much of the old soil as possible should be removed without unduly distressing the plant. A suitable compost is three parts of loam to two of peat or leaf-mould and a little sand, the whole being thoroughly incorporated together. The flowers are produced on the young shoots of the present year. When the pots are well furnished with roots, but not before, an occasional stimulant will be helpful. Either guano or Clay's Fertilizer may be given, or the two may be used alternately. *Thunbergia laurifolia*.—Any old and exhausted wood may be cut out, but the main shoots should be retained if there is space enough for them. If not, they may be shortened back to half their length. It is quite possible that your plant would be benefited by repotting; if so, now is the best time to do it. A mixture of loam, leaf-mould and sand will suit it well. If in your opinion the plant does not need repotting, you may give it a fertiliser occasionally; but if it is repotted, no stimulant should be given till the pot is well furnished with roots.

ADVICE ON DIFFERENT PLANTS (*T. H.*).—The name of the variegated-leaved shrub is *Eunymus radicans* variegata, and the grass apparently a *Carex*, but it is impossible to say without flowers. The cultural directions for the two plants concerning which you enquire are not at all difficult. *Coleus thyrsoideus* is very readily struck from cuttings in the spring when the young shoots are about three inches in length. The stouter shoots make the best cuttings, as they form more shapely plants than the weak ones. The cuttings should have the bottom pair of leaves removed, and then be inserted singly into small pots in a mixture of loam, peat or leaf-mould and sand, the whole being passed through a sieve with a quarter of an inch mesh. Then, placed in a close propagating-case in a structure warmer than that of an ordinary greenhouse, they will root very quickly. Directly this happens the young plants must have more air, and the point of the shoot must be pinched out in order to encourage a bushy habit of growth. It will also probably be necessary to repeat this later on. The plants must be shifted on, when necessary, in a mixture of loam, leaf-mould and sand, about two-thirds of loam to one of leaf-mould being a very suitable mixture. Good flowering examples may be grown in pots 6 inches in diameter. As the pots get full of roots, an occasional stimulant will be very beneficial. Cuttings taken in the summer and not pinched will flower well in comparatively small pots. In the autumn and winter the flowers develop best in a temperature of 50° to 65°. *Linum trigynum* should, when the flowers are over, be placed in a structure warmer than an ordinary greenhouse, say, where a minimum night temperature of 55° is maintained. They will then soon start into growth, and the young shoots strike readily under the same conditions as advised for the *Coleus*. The growing point, too, must be pinched out in order to induce a bushy habit. During the summer this *Linum* succeeds best in a cold frame, which should be shut up in time to husband a little sun-heat. Like the *Coleus*, an occasional stimulant will be useful as the pots get furnished with roots. For the autumn and winter the same temperature will suit both plants. The old plants of *Linum*

may, if required, be kept over for another year by shortening any straggling shoots, and, as soon as new ones are produced, the plants should be shifted into pots a size larger than they were in before. The same treatment as advised for young plants should be followed.

FRUIT GARDEN.

FUNGUS ON PLUM TREE (*J. S.*).—The fungus is certainly *Stereum purpureum*, the one to which silver-leaf in Plums is attributed. It never fruits on living wood, but only on parts that have died. If the stump has been cut for two years, it is quite possible that the fungus has invaded it since cutting; but if it were left in the ground, it may not have died until the present season. In any case its presence is a menace to neighbouring trees.

KITCHEN GARDEN.

MANURING KITCHEN GARDEN (*A. J. C.*).—If yours is a clayey soil, you can do without potash salts, as the lime you have used will have set free a sufficient quantity for most crops. If not, it would be well to add wood-ashes as well as the superphosphate and sulphate of ammonia, as these will supply the potash required and usually present in but small quantities in light soils. Use 2oz. to 4oz. to the square rod, not more, and do not allow the ingredients to be washed by rain before applying them to the soil.

MISCELLANEOUS.

GRUB FOR IDENTIFICATION (*Mercury*).—The grub is that of the garden swift moth. Fork in Vaporite or any other naphthaline compound about the roots, and in June see that the moths are captured with a butterfly net; they may easily be seen at dusk as they flit ghost-like over the beds. The larvae feed on all sorts of fleshy roots.

NAMES OF FRUIT.—*C. Willmott*.—The Apple is practically identical with Tower of Glamis.—*J. C. C.*—Bowhill Pippin.

SOCIETIES.

NATIONAL CHRYSANTHEMUM SOCIETY.

ON Monday evening, the 15th inst., there was a meeting of the executive committee of this society, when Mr. Thomas Bevan presided. In presenting the report of the finance committee, which appeared to give general satisfaction, the secretary stated that, all circumstances considered, it was recommended that the publication of the National Chrysanthemum Society's Transactions should be deferred, and this was agreed to without opposition. It was also stated that for the 1915 show the schedule of classes will take the form of a supplement to last year's schedule, certain matter in that being applicable to the present year, and this was also approved of.

The deputation appointed to wait on the Royal Horticultural Society and to make arrangements for the National Chrysanthemum Society's autumn show at the Royal Horticultural Hall, Westminster, expressed their gratification at the cordial manner in which they had been received by the Royal Horticultural Society's officials and the satisfactory result that had been come to. The show will be held there on November 11 and 12 next. It will be open to members of the National Chrysanthemum Society and, of course, to the Fellows of the Royal Horticultural Society, but non-members of these societies will have to pay 1s. for admission. The action of the deputation was confirmed by the committee.

The budget for 1915 was then submitted and passed. The schedule sub-committee were authorised to complete and issue the supplement referred to above, and then followed the election of the various members for the different committees. As one-third of the floral committee retires every year, the necessary vacancies were filled by the appointment of Messrs. P. A. Craig, W. Newton, J. R. Riding, W. Wells, R. Leach and Runciman, who will serve till 1918. With few alterations the following were reconstituted as before: the finance, schedule and publication committees. With regard to the 1915 Conference, it was resolved that all details in connection with it be left in the hands of the schedule committee to complete, and the same course is to be pursued with regard to the proposed series of educational meetings.

WARGRAVE AND DISTRICT GARDENERS' ASSOCIATION.

THERE was a very good gathering of members on Wednesday evening, February 10, to hear a lecture on "The Cultivation of the Apple," by Mr. F. G. Drew of University College, Reading. By means of large diagrams, the mechanical analyses of several soils were shown and their good and bad points demonstrated. Temperature, rainfall and soil were points which required consideration when planting trees. Other topics discussed were how to plant trees, pruning, storing the fruit, the fruit-room, diseases and pests and the best means of combating them. A list of the best varieties of fruit concluded a most interesting lecture. A good debate followed, and Mr. Drew answered numerous questions. He also exhibited boxes of Apples, showing his method of packing fruit for market. A hearty vote of thanks was accorded him at the close. Messrs. Waterer, Sons and Crisp, Limited, staged a nice exhibit of hardy flowering plants. Three new members were elected.

THE GARDEN.

No. 2259.—VOL. LXXIX.

MARCH 6, 1915.

NOTES OF THE WEEK.

An Interesting Crocus.—Although it is a great many years ago since *Crocus susianus* was first introduced into our gardens, it is still one of the most charming of the early spring-flowering set, owing to its curiously reflexed flowers. It is suitable for almost any position, and we have seen it used with good effect naturalised in the grass, although it does not increase so rapidly as some species. It is one of the few Crocuses, if not the only one, that reflex in this peculiar way, and when the flowers are half open the brownish purple feathering on the outside harmonises with the deep orange of the inside of the segments.

The Double Red Peach.—Among the numerous hardy trees and shrubs used for the decoration of the conservatory or greenhouse at this season, the Double Red Peach, *Prunus persica magnifica*, is one of the most effective. Naturally flowering outside at the end of March and early in April, the plants do not require a very high temperature to force them into bloom during February. The flowers are rich carmine red, a rather lighter shade under glass than in the open air. These are borne along practically the whole length of last season's growths. As many of the shrubs are semi-pendulous, this adds considerably to their pleasing effect.

A Beautiful Winter Heath.—The *Erica* illustrated on this page is the most useful winter-flowering variety of the whole genus, the plants frequently commencing to blossom during November and continuing the display until April is well advanced. In the past it has been named *E. mediterranea hybrida*, but Mr. W. J. Bean, in his new work on trees and shrubs, adapts the specific name of *darleyensis*. It is, as will be seen in the illustration, a very free-flowering plant, the rose pink blossoms defying the most rigorous weather. It should be planted in bold masses, in soil that is fairly light, well drained, and contains plenty of decayed leaves or some coarse peat. It is a stronger grower than the better-known *E. carnea*, the plants quickly attaining a height of a foot, and subsequently, if left alone, nearly twice that height. It is usually regarded as a hybrid between *E. mediterranea* and *E. carnea*.

Cytisus fragrans.—In most parts of the country this Canary Island shrub is properly regarded as a greenhouse plant, but in Devonshire, Cornwall, South Wales, Ireland and some other places it is grown out of doors as an ordinary shrub, and under the more natural conditions it develops amazingly, forming a bush 4 feet to 6 feet high, with a graceful habit and long branches, which in early spring are clothed with bright golden,

An Evergreen Chinese Barberry.—Among a number of new species of comparatively recent introduction from China, *Berberis candidula* is one of the most distinct. It forms a dwarf, bushy plant 1½ feet to 2 feet high. With age this height will probably be exceeded, but growth is slow. In some respects this latter trait is an advantage, particularly when one is able to plant *B. candidula* in the rock garden. Other positions to plant it are in formal beds in the pleasure grounds and the front of the shrubbery border. The leaves are dark shining green above, contrasting effectively with a silvery under surface. The flowers are yellow, followed in the autumn by purplish black fruits.

Effect of Radium on Plant Life.—We have just received from Messrs. Sutton and Sons a bulletin giving details of experiments conducted in their trial grounds at Reading with radio-active ores and residues. Full details of these experiments were published in our issue for August 15, 1914, page 419. The bulletin now before us gives the whole of the results achieved, most of which, however, were not quite conclusive. We understand that some, at least, of the experiments will be continued during the present year, when it is hoped more definite results will be obtained. In the meantime, anyone who is interested in the subject will be well advised to obtain the bulletin, which can be had from Messrs. Sutton and Sons, Reading, price 2s. 6d. net.

A New Rose Species.—*Rosa sertata*, a new species, is likely to prove an interesting addition to our shrubberies, as well as being suitable for Rose gardens where free-growing and single-flowered kinds are encouraged. A native of China, seeds were sent to Messrs. J. Veitch by Mr. E. H. Wilson in 1907, and by that firm plants were distributed a few years later. Although of weaker growth, it has much of the general appearance of the Himalayan *R. webbiana*. It appears as if it will grow 4 feet or 5 feet high, with a rather loose but graceful habit, the branches being clothed with leaves 3 inches to 4 inches long, made up of from seven to eleven oblong leaflets. The flowers are often borne singly, and are rather more than 2 inches across, deep rose in colour, and succeeded by bright red fruits. Like other Roses, it gives excellent results when planted in good loamy soil.



A COLONY OF THE HARDY HEATH (*ERICA MEDITERRANEA HYBRIDA*). THE PHOTOGRAPH WAS TAKEN A FORTNIGHT AGO.

fragrant blossoms that almost hide the leaves. The more vigorous and finer-flowered variety *elegans* is grown in the same way, and gives a much better account of itself than when grown in pots, although as a pot plant it is one of the showiest spring-flowering shrubby greenhouse subjects we possess. It is possible that both of these plants would succeed against warm walls in many gardens; at any rate, they are worth a trial.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Home-grown Vegetables and Our Food Supply.

I have much pleasure in stating that a good many of our members have already made arrangements for growing extra vegetables in their gardens this year, and we are placing your article on the agenda of our next meeting, when suggestions for a special exhibit of vegetables to be shown at our annual show will be discussed. We have much pleasure in endorsing your suggestions.—JOHN T. GODDARD (Hon. Secretary), *The Crown-field Horticultural Society*.

—The article in your issue of the 6th ult. was discussed by the council of this society at a meeting on February 23, and was adjourned for further consideration at a special meeting to be held for that purpose. I may say, however, that the members present were in full sympathy with the objects advocated in your article; but in this district we are faced with several difficulties, the most important being the shortage of labour. This is being severely felt, both in large and small gardens, so that the tendency is rather to reduce the area under cultivation instead of increasing it.—C. S. FUIDGE (Secretary), *Souhampton Royal Horticultural Society*.

—I placed your article before our committee on February 23, and your suggestions received the approval of the committee. Our society received, last August or September, leaflets from the Royal Horticultural Society, advising the cultivation of more vegetables, also giving a list of what seeds to sow at once. The leaflets were distributed in our neighbourhood. On December 6 last we also received a letter from Admiral Lord Charles Beresford, President of the Vegetable Products Committee, asking our society to form a local branch of the above, which we have done. Since then we have sent packages of fruit and vegetables every week to the Fleet at sea. At the annual meeting, held in January last, it was unanimously decided to hold our show in July next. I might add that Budleigh Salterton has only a population of 2,000.—E. J. VICKERY (Hon. Secretary), *Budleigh Salterton Horticultural Society*.

—In case our secretary does not think to send you another line, you may like to know that the Mayor of this Borough (Hornsey) is giving special prizes this year to cottagers and allotment holders for the best stocked and cropped garden of vegetables and fruits. This seems such an excellent idea that it is worthy of being made widely known, in the hope that other public officials might do something similar, thereby inducing extra attention to be given in the producing of necessary foodstuffs. The Mayor of Hornsey thinks that horticultural shows ought certainly to be held this year, and that fruits and vegetables should be the strong features at such shows, flowers taking a less honoured position for this year. I write as a member of the committee.—C. TURNER, *Highgate*.

Orange Marmalade : A Good and Economical Recipe.—Ingredients: Twelve to fifteen Seville Oranges (fifteen small are better than twelve large), 10 lb. of sugar, and 10 pints of water. Method: First carefully wipe the Oranges clean with a soft piece of old linen dipped in tepid water. (You cannot tell how many hands the Oranges have passed through between the tree and your

kitchen.) Cut the Oranges very thinly, remove and crush the pips, put the pips into a cup with sufficient water to cover them, and leave them to soak. Put the Oranges into the preserving pan with the water, leave them twelve hours to soak. Then boil for an hour and a-half after it boils up. Now add the sugar and boil for another hour and a-half (or longer) till it sets, when add the water strained from the pips. I have taken this recipe from my manuscript book.—ANNE AMATEUR.

Sarcococca humilis and S. ruscifolia.—The writer of this note on these plants in THE GARDEN of February 20 pays them no more than their due, but he omits to mention not the least of their virtues—the possession of an abundant crop of red berries about the size of those on a Thorn tree. The raceme has usually three male flowers, and the single female blossom at the base, close into the axil of the leaf, produces a berry, and these fringe the whole length of the spray, making the plant very ornamental till after Christmas.—ARCHIBALD BUCHAN-HEPBURN.

Hybrid Freesias.—Now that there are so many named varieties of Freesias, the cross-breeding of them is an increasingly delightful pastime. A careful study of seedlings flowering now, with a recorded pedigree to refer to, reveals one or two interesting points, as follows: *F. refracta alba* (the pure all-white species), when crossed with the coloured varieties, gives practically all self-coloured seedlings in charming delicate shades of mauve, lavender, heliotrope, salmon and yellow, according to the variety of pollen parent used; while *F. refracta* in almost all cases passes its yellow blotch on to its progeny in more or less accentuated form. One of the surprises is that in crossing a white and a pale lavender, such as *Amethyst*, a purple appears here and there; but the explanation is simple, as it is no doubt the colour of one of *Amethyst's* parents coming out in the third generation.—F. HERBERT CHAPMAN.

Division of the Leedsii Class of Daffodils.—I have for some time thought that some further division is desirable. I suggest that the solution of the difficulty as to small and large cupped *Leedsii* being shown together and the better understanding of descriptions could be met on similar lines to those adopted in the present Classification in the case of distinguishing between an *incomparabilis* and a *Barrii*, viz., the measurement of the cup or eye. Division IV., *Leedsii*, would then have two divisions, (a) cup or crown not less than one-third, but less than equal to the length of the perianth segments; (b) cup or crown less than one-third the length of the perianth segments. These divisions will, I think, suffice for the present, but within a few years a further division may be found desirable in regard to colour, and possibly still further as to size and shape of cup or crown; but "sufficient for the day is the evil thereof."—C. LEMESLE ADAMS.

Shows, Schedules and Judges.—I think it would be a great boon to exhibitors from a distance if the committee would do a little more in the way of packing and despatching boxes and stands after the show. In drawing up the schedule a clear definition of an amateur should be given. Each district seems to have a different ruling on this point. In some county agricultural shows I have seen a lot of unpleasantness through this. If there is one word in horticulture that wants settling it is "amateur." I think the fairest way is to put classes in for large and small

growers and strictly adhere to the wording of the schedule. The man with 200 Roses does not stand a chance with the amateur with 5,000. Now for the question of judges. "Exhibitor" is quite right, in my opinion, that many judges are selected because they hold a position in some large establishment, and probably have never exhibited in their lives. But on principle I would sooner such a man judge my exhibit—providing he did not enter the exhibition till all the staging was finished and the exhibitors cleared out—than the so-called expert who had, say, been staging in Classes 8, 10 and 12, and then put his coat on to judge Classes 9, 11 and 13 at a Sweet Pea show. Selecting judges from the exhibitors is simply a farce. Again, take a raiser and distributor of new varieties of anything, and then ask him to judge six new varieties sent out in the autumn of 1914 or the spring of 1915, and if there is keen competition—he can be honesty itself—he will lean to his own varieties.—FAIRNESS.

The Double Chamomile.—In a recent number of THE GARDEN a correspondent enquired about double Chamomile, and in a later issue another offered Chamomile which came up freely in her garden. It may be well to draw attention to the very common confusion between true or common Chamomile (*Anthemis nobilis*), and Feverfew, which is also called wild Chamomile (*Pyrethrum parthenium*). The medicinal plant is *Anthemis nobilis*, both single and double. The single has the greater medicinal value, though the double is the more generally grown for sale, probably because the dried bloom bulks more largely. Feverfew or wild Chamomile is a frequent garden weed, though it is good enough to be considered a garden plant. There are, I believe, some specially fine named garden forms which I do not possess, but should be glad to hear about. The common Feverfew grows about two feet high, with spreading heads of white flowers and tufts of pale green leaves that are always a welcome sight in the spring. The whole plant, and the leaves especially, have a strong, wholesome, Tansy-like smell. *Pyrethrum parthenium aureum*, the well-known Golden Feather, except for its dwarf habit, is so much like the common Feverfew that one is surprised that botanists distinguish them as separate species. I offer this note thinking that if the first correspondent was asking for true Chamomile and the second was offering Feverfew, the right plant would not be changing hands.—G. JEKYLL.

The New Zealand Flax.—In the issue of THE GARDEN for January 30, page 50, Mr. J. Beadle, Dunedin, New Zealand, discusses the question of soil suitable for the plant in its native habitat, and cites cases which have come under his own observation to prove that this plant will thrive in soils of widely differing character. This opinion agrees with what I have myself seen of the plant in the British Isles. Some ten years ago I visited the gardens at Kylemore Castle, County Galway, and there I saw this plant growing to perfection. In the mixed flower garden it was growing in huge clumps in light, friable loam, and outside the grounds there were acres of it growing most luxuriantly, in rather peaty soil, among rough grass, with no shelter whatever. In the Royal Botanic Gardens, Edinburgh, a colony of the New Zealand Flax grows well and flowers freely on a bank in close proximity to the lake; and here on the shores of the Forth it does very well in a rather dry situation, almost close up against a thicket of tall forest trees.—CHARLES COMFORT, *Midlothian*.

Centaurea (Ætheopappus) pulcherrima.—The *Centaurea* family is a very large one, and for the purpose of classification is split up into several sections. The plant here illustrated belongs to the *Ætheopappus* section, and is thus sometimes known as *Æ. pulcherrimus*. It is a very handsome species, of dwarf, bushy habit, growing about two feet high, with silvery pinnate foliage and large rosy-coloured flowers of the Sweet Sultan type. Closely allied to the better-known *C. dealbata*, but of more rigid habit and with larger flowers, it is also a native of Asia Minor and the Caucasus. An excellent border plant, of free growth and very floriferous, *C. pulcherrima* of recent introduction, and a welcome addition to a family which already provides our gardens with several handsome subjects. It may be increased by division in the autumn or spring, or may be raised by means of seeds, which are produced in fair quantity.—W. I.

Cultivation of *Tropæolum speciosum*.—That this plant will flourish in the soft, humid climates of Scotland, the Lake District and Cornwall none will doubt, but it may surprise many to know it will also not only grow, but flourish in the hot, sandy soil of Surrey if given suitable conditions. In those parts of my garden where it is established it is growing as freely as a weed. On one occasion I had to throw away nearly a barrow-load of roots. Having grown the plant with success for ten years under apparently unfavourable conditions, and having tried to study its requirements, I believe your correspondent Mr. Rowland A. Earp comes very near the mark when he says he "would plant it under the tiles of the backyard in a sunny part." As regards soil, it should contain a very large proportion of leaf-soil or peat, or both, in which the roots can spread where they please. I believe the doctors advise us to keep our feet warm and our heads cool. Well, *Tropæolum speciosum* requires exactly the opposite to keep it in good health. It flourishes in full sun, but the sun must not shine upon its roots. Plant it among the roots of *Rhododendrons*, *Azaleas*, *Kalmias*, *Hollies*, *O'ëaria*, *Skimmia* and such like shrubs, and it will send its roots right under them and wreath their tops all the summer with its lovely trails of bloom. Never must spade or fork, or even hoe, come near its sacred haunts. Nothing but hand-weeding must be allowed. If weeds appear and the *Tropæolum* runs up and over them, they must be left or snipped off. Small twigs should be put to the tender trails when they appear, so that they do not straggle over the soil. A thick dressing of leaf-soil should be given—not, I think, in the summer, as one of your correspondents advises, but in early spring before the sun has any power. Another point is not to cut the trails off in the autumn, but leave them to die back naturally. I have known some trails to remain green all the winter and start into growth in the spring, and so flower very early; but this is unusual. Of course, plant the roots deeply—8 inches to 10 inches. Never disturb them; they need a year or two to establish themselves. Let the situation be such that they can spread about in the bed among the roots of

other plants which are never dug up. If I write dogmatically, I hope I shall be pardoned, being conscious of many humiliating failures with other plants if successful with this one.—C. G. B.

—In the article on *Tropæolum speciosum* in your issue of the 6th ult., page 68, your correspondent omits one important consideration in planting the soft, long roots; that is, they should be laid on some very hard ground so that the weight of the soil overhead will not bruise the tender roots and make them decay instead of grow. That is one secret about establishing a colony of this most desirable climber, and it stands to reason it must be severely let alone. It will come up, perhaps a yard from where the planting was originally made; but wherever it comes it is decidedly welcome. With me it often lives overground all the winter, the spring growth commencing 4 feet to 6 feet up the old growth of the preceding year. One can never say for certain which aspect suits it best, but half shade and moisture are its chief



CENTAUREA PULCHERRIMA, A COMPARATIVELY NEW HARDY PLANT WITH ROSE-COLOURED FLOWERS.

delights.—J. HILL POE, D.L. (Captain), *Riverston, Nenagh*.

Undesirable Plants in the Rock Garden.—"E. H. J." in *THE GARDEN* of February 13, page 77, initiates a very useful campaign. While some of the plants he mentions hardly require a warning, so universally are their evil habits known, there are others that are easily eliminated or controlled, such as *Cerastiums*, *Hieraciums* and *Muscari*. *Sedum spurium* has never given me any trouble. *Oxalis corniculata*, once established in the rockery, cannot be banished, and seedlings appear among one's most cherished plants. The following are some of the plants the introduction of which into the rockery is to be avoided: All *Acenas*, *Cotulas*, some *Asters*, most *Vicias*, *Centaurea montana*, and *Linaria hepaticifolia*, a nice, harmless-looking plant, probably recommended by the nurseryman as most suitable to a confiding beginner; but let him beware. For a year perhaps he delights in a neat little plant with desirable leaves and flowers; he little knows what is going on underground. Suddenly a single leaf appears unnoticed in a neighbouring plant.

At last his attention is drawn to the leaves cropping up in all directions; then he digs up the long white, thread-like roots. Should he pursue his investigations, he will find the rocks beneath the soil literally encased in a coating of white roots, the most minute particle of which will grow into a plant. I have taken down a portion of rockery, removed all stones and earth three times, and yet the *Linaria* still survives. *L. pallida* is nearly as bad. The genus is saved by the three varieties of *L. alpina*, which are joys for ever. The *Vetches* and *Lathyrus* are to be viewed doubtfully. *Arenaria balearica* can become very troublesome, but must not be omitted from the rockery, notwithstanding. *Tropæolum speciosum*, once established, can never be got rid of, and spreads far and wide. For those who may desire to grow some of the undesirables on account of their beauty, either in the rockery or in the borders, a good plan is to grow them in short clay or earthenware tubes that are closed at one end; these can be obtained in various sizes. The pot is sunk sufficiently

to hide the rim, and the plant has no opportunity of spreading except over the rim. A little care will easily prevent this. I hope others will add to the list of undesirables.—ARCHIBALD BUCHAN-HEPBURN.

FORTHCOMING EVENTS.

March 9.—Royal Horticultural Society's Show of Forced Spring Bulbs, 1 p.m. to 6 p.m. Lecture at 3 p.m. by Mr. Leonard G. Sutton on "Flowers from Seed, in the Greenhouse and in the Open Border." Royal Horticultural Hall, Vincent Square, Westminster.

March 10.—Royal Horticultural Society's Show of Forced Spring Bulbs, 10 a.m. to 6 p.m. Royal Horticultural Hall, Vincent Square, Westminster.

March 16.—Royal Horticultural Society's Exhibition of Flowers, Plants, &c., 1 p.m. to 6 p.m. Lecture at 3 p.m. by the Rev. Professor G. Henslow, M.A., V.M.H., on "The Passing of Darwinism." Royal Horticultural Hall, Vincent Square, Westminster.

BEAUTIFUL GREENHOUSE PLANTS.

THE BRUNSFELSIAS.

A GENERATION ago the Brunsfelsias were far more frequently grown in gardens than they are at the present day. Though the above generic name has been long used by botanists, the different kinds were almost invariably known as Franciscias, which is in gardens and nurseries still retained. Some of the species, notably *B. calycina*, represented by different forms to which specific names used at one time to be applied, was, and still is, the most generally grown of them all.

In the variety *grandiflora* the flowers, which are fully 3 inches across, are, when first expanded, of an intense purple colour, but gradually pale till they become almost white. This is common to most members of the genus and forms a very notable feature, as, in the case of a large, well-flowered specimen, blossoms of all shades of colour from purple to white may be seen on the same plant. A dwarf, compact-flowered form of *B. calycina*, with the varietal name of *floribunda*, has been brought prominently forward within the last few years. As good examples full of bloom may be had in pots 5 inches in diameter, it is invaluable for various decorative purposes where the larger growers would occupy too much space.

A good, large-flowered variety of *B. calycina* known as *confertiflora*, and which used to be assigned specific rank, is of particularly good habit, which circumstance stood it in good stead when specimen plants were popular. There are several other species of which especial mention may be made, namely, *B. hopeana* or *uniflora*, a dwarf, compact little bush with small leaves and solitary violet purple flowers with a light centre. The species herewith illustrated—*B. undulata*—has flowers white or nearly so. It is a native of Jamaica, whence it was introduced as long ago as 1780. It does not, however, appear to be in general cultivation in this country, for I cannot find it mentioned in any catalogue, neither is it in the "Kew Hand List." All the members of this genus, which belongs to the Order Solanaceæ, are natives of the New World, mostly from the West Indian Islands or South America.

The different Brunsfelsias require the temperature of a stove for their successful culture, at all events during the greater part of the year, for when growth

is completed they are benefited by being removed to the coolest part of that structure. A mixture of loam, peat and sand suits them well. Propagation is readily effected by cuttings of the young growing shoots taken in spring and put in a close propagating-case with a gentle bottom-heat. Shade is essential to the well-doing of the Brunsfelsias, particularly during the flowering period, as the blossoms last much longer when protected in this way. Most of the kinds flower during the latter part of the spring, and maintain a succession from then till summer is well advanced. One

ROSE-GROWING IN TOWN GARDENS.

SOME NOTES ON MANURES AND THEIR EFFECTS.

IT can hardly be over-emphasised that, in applying stimulants of any kind to Roses, the greatest care should be taken not to overdose them. Plants can only take up their food in liquid form as it becomes available for the roots by decomposition or other chemical change, and the amount that they are able to assimilate depends largely upon the health of the trees and the condition of the soil. Too strong a stimulant frequently destroys the feeding roots, and can have nothing but harmful results, so that growers should be careful never to apply any artificial manure in greater strength than is recommended from some reliable source.

But before attempting to enrich the soil in this way, the texture and quality of the beds should be improved by methods which have been indicated; then, when the ground is in "good heart" and the plants growing freely, one may have recourse to the aid of certain artificial manures, which will add materially to one's success.

To be of real benefit, a fertiliser must contain fair proportions of those elements most needed in the soil, either because they are more quickly exhausted by the growing plants or the ground is naturally deficient in them. To add these intelligently and to know exactly what one is adding is the only method by which one can make sure of the effect they will have upon the plants; so that a consideration of the manures most generally in use may be of advantage to those who are unfamiliar with their character. Certain of these are natural, others contain the elements in concentrated form; but for convenience they are here classed together.

The principal soil elements in relation to the Rose are nitrogen, potash, phosphates, lime, iron and magnesia.

The first three are those most freely taken up, the others needing to be added only when there is a deficiency. Obviously one can do little good by administering lime to chalky ground, or iron where there is already an abundance of it, so that a general formula needs to be modified in accordance with the local conditions, and this is another reason for learning something about the manures before applying them.

Nitrogen may be briefly regarded as the principal element which gives vitality to the plant. Its addition to the soil promotes quick growth, but it must not be given unless a sufficiency of



BRUNSFELSIA UNDULATA, A NATIVE OF JAMAICA, WITH WHITE FLOWERS. IT NEEDS A VERY WARM GREENHOUSE.

would like to see these plants more widely cultivated than they are at present. H. P.

SKIMMIAS IN PERFECTION.

In the rock garden in the Royal Botanic Garden, Edinburgh, I recently saw the two finest clumps of Skimmias it has ever been my lot to behold, so healthy and so completely smothered with berries of the brightest red. Much confusion prevails in the nomenclature of the Skimmias; but the two clumps in question were labelled *S. oblata* and *S. Fortunei*. C. C.

phosphates or potash is already present. Some nitrogenous manures, such as sulphate of ammonia, are very quick in action, so that the application of the other elements should take place well in advance of it. Excess of nitrogen will benefit the foliage at the expense of the bloom; the want of it is usually indicated by pale green foliage, the plants having a stunted appearance and lacking vigour.

The principal forms used by the Rose-grower are nitrate of potash, sulphate of ammonia, dried blood and hoof and horn. The last two are slow in action. Horn-meal is useful for adding to Rose beds when making them up, and is very lasting in its effects.

Dried blood contains potash, phosphates, iron, magnesia and lime in small quantities in addition to the nitrogen, so that it makes a valuable stimulant.

Apply 2oz. to the square yard in early spring. Nitrate of potash (saltpetre) contains both the substances its name implies, but it is rather expensive, and as the proportion of nitrogen is very high, it is only safe to give it in a very diluted form; a quarter of an ounce to a gallon of water is quite strong enough.

Sulphate of ammonia is a well known and valued stimulant of great assistance to exhibitors when applied carefully. It dissolves very readily in water, to which it should be added in the proportion of an eggcupful to four gallons, giving each plant a gallon of the liquid. This should be applied only to vigorous trees when the beds are moist and after the buds have formed. The nitrates of soda and ammonia are also concentrated forms, but the substances previously named are much to be preferred. P. L. GODDARD.

(To be continued.)

THE MUSK ROSE (ROSA MOSCHATA).

This delightful species should find a place in every garden where space can be allotted for its very vigorous growths. It is best seen growing as a big free bush, well isolated, or rambling over a clump of tree stumps placed in a conical form in any odd corner. It is a most profuse blooming Rose when well established, but is liable to suffer in a severe winter; hence the need for a rather sheltered spot. The flowers appear about the first week in July, and continue in great beauty two or three weeks. It is really one of the wild Indian Roses, *R. Brunonii*, which is sometimes known as the Himalayan Briar, being a form of it. The variety *grandiflora* is perhaps the most rampant-growing rambler one can obtain, and it will ascend to the top of a tree before any other Rose is half-way up.

DANECROFT.

DAFFODIL NOTES.

The English Name.—It seems almost incredible, but I know a man somewhere about twenty-three or twenty-four years of age who did not know his proper Christian name until twelve months ago! There are many who do not know what to call the Daffodil family. At one time it is Daffodil and at another Narcissus. Suppose for one moment these plants were human beings and that they had visiting cards, what would the different branches print upon theirs? Would it be Mr. and Mrs. Narcissus, or Mr. and Mrs. Poetic Daffodil, if they used an archaic form, or Mr. and Mrs. Poet Daffodil if they preferred a more modern one? I am frequently asked

My thoughts have been directed into this channel by reading an address that old Peter Barr gave to the Sea Point Horticultural Society at Cape Town in 1901, in the course of his famous tour round the world. He recalled the time of the first Daffodil Conference in 1884, when he said "the subject of a popular name was much debated." He tells us that ultimately it was decided to adopt Daffodil for all sections of the family. And then in accordance with this he writes in the concluding paragraph of the introduction, "In this paper the word Daffodil will be used throughout, except when a quotation is made, and then the words of the author will be given."

The family name is still, I fear, in what chemists call the unstable equilibrium, and from the loose



A NOBLE BUSH OF THE MUSK ROSE (ROSA MOSCHATA).

by non-Daffodil people what the difference is between a Daffodil and a Narcissus. The proper reply is "None." Daffodil is the English family name and Narcissus the botanical or Latin one. Every Daffodil is a Narcissus and every Narcissus is a Daffodil, and in Parkinson's day (1629) was called one. In course of time the names got jumbled up, and some people used Daffodil and some Narcissus, or quite likely first one and then the other. In the sixth edition of "Miller's Gardeners' Dictionary" (1752) all branches of the family, with the exception of the Jonquils and Tazettas, were Daffodils; whereas in 1771 John Dicks, in his "Gardeners' Dictionary," called them all Narcissus. So it has continued up to the present.

way in which we use the words Daffodil and Narcissus it must be difficult for the various branches to know exactly what to call themselves among their English friends.

My purpose in these remarks is to plead for the retention and use of the old word Daffodil when we write or speak of the different sections. This practice would be in strict conformity with the nomenclature laid down by Parkinson, approved by the 1884 Conference, and recommended by our king (Peter Barr). I may add that in Hill's edition of "Hale's Eden" (1757) we find the "Poetic Daffodil" (*sic*) described and figured. It is interesting to record the use of the actual designation for our "Poets," that I would like to see generally adopted. Taking the garden classification

of the Royal Horticultural Society (1910), I would venture to suggest the following English designations for the different classes:

1. Trumpet Daffodils.
2. Incomparabilis or large-cupped Daffodils.
3. Barrii or small-cupped Daffodils.
4. Leedsii or white-cupped Daffodils.
5. Triandrus or Angels' Tears Daffodils.
6. Cyclamineus or Cyclamen-flowered Daffodils.
7. Jonquilla or Rush-leaved Daffodils.
8. Tazetta or bunch-flowered Daffodils.
9. Poeticus or Poet (Poetic) Daffodils.
10. Double Daffodils.
11. Various Daffodils.

In order to try to arrive at a general agreement, it would be of much interest if those concerned would state their views; for example, Mr. P. R. Barr. My friend, I notice, has lately altered his signature. It is now Peter R. Barr, and not the more familiar P. Rudolph Barr of his younger days. I am not surprised at the change. It is only the Daffodil blood coming out! He is a true "chip of the old block."

Poet Daffodil Classes.

Begin to repair an old house, and you never know where you will stop. My note about the necessity of show committees seeing that all blooms were exhibited in their proper classes has brought me a plaintive note from one of my "Poetic" friends. He sees the Poets so frequently wrongly named, more particularly in the amateur and smaller classes, that he thinks something ought to be done. I agree. Will he, however, suggest the remedy? Not a great while since I wanted to get an old variety named. I took it to Birmingham, but I could not find anyone who would stake "his bottom dollar" upon it. The fact is that if we exclude a comparatively few well-differentiated varieties, Poet Daffodils are *very much* alike indeed, and I think nine hundred and ninety nine people out of a thousand would soon get out of their depth if called upon to name by the eye and memory alone. Much as I value correct naming, I feel there is a good deal of excuse to be made for those who err here, and that an unintentional wrong label is but a venial fault. "My teeth is it that won't let me pass, then?" said the Irishman to the recruiting doctor. "Faith, sure, my cousin Mike got through with the same ones only last week!" It might so easily be right at London, wrong at Birmingham.

The Day.—"The Day" for the Daffodil enthusiast is the official opening of the season, which is heralded by the first meeting of the Royal Horticultural Society's Narcissus committee and the holding of the Forced Bulb Show at Vincent Square. This year it is March 9. A letter from Mr. Daffodil Pearson (the three brothers have such convenient initials) tells me how he had all his soil sterilised in the autumn before potting any

Horticultural Society's powers that he combine a still earlier exhibition with that rather woe-begone function the annual general meeting? It seems to want something to make it "go."

Royal Horticultural Society's List of Daffodil Names.—I have had the first instalment of the "six hundred thousand" from Mr. Curtis since my last notes appeared. We are getting on—between three hundred and four hundred is not a bad start. J. J.

EVERGREENS ON WALLS IN WINTER.

It is only in the depth of winter that we fully appreciate the value of evergreen shrubs and trees. In woodland, in the colder months, there is often nothing green but Holly and Ivy. It is then that we see what precious things are these two native evergreens; not only beautiful in themselves, but giving evidence of comfortable harbourage to many forms of wild life. So also in gardens, the shrubs with persistent foliage, that in summer passed almost without notice, acquire their full value in winter, and are then in their richest dress.

In planting garden spaces against buildings the mistake is often made of having borders of temporary or summer plants only, especially in such places as narrow borders between house wall and terrace walk; but if these are filled with evergreens, such as Laurustinus, Rosemary, Lavender and Berberis, with, among them, a few points of interest as of China Rose and Lilies, there is a pleasant sense of permanence and a kind of dignity that is in harmony with the sentiment of a good building. When a garden is



THE JERUSALEM SAGE (PHLOMIS FRUTICOSA) IN WINTER. THIS IS A BEAUTIFUL GREY-LEAVED SHRUB.

bulbs, and that this precaution has had the happiest results, so I presume he hopes to show us "what's what" next week. He is, I believe, "the father" of competitive exhibitors, his first essay at Birmingham going back to almost prehistoric times. I should very much like to see him carry off a gold medal on March 9. There are plenty of good fish in the sea at Lowdham. I look forward to this show with increasing interest each year. It has already proved the elasticity of the Daffodil season, but it will bear a little more stretching. Why should not the Royal

terraced, and there are retaining walls of solid masonry at the back of borders, the good use of evergreen shrubs is important, not only for their own display, but for winter clothing and as a background to the flowery masses of summer. There are many more shrubs suitable for such places than are generally thought of. Where walls are fairly high, there are such fine things as the evergreen Magnolias and Bay (no matter if they rise above the wall level), Myrtle, Azara and white Jasmine, for though Jasmine is not strictly evergreen, not only does it hold its leaves

till Christmas, but the mass of green stem shows with a general green effect. Some climbing Roses have the same quality; Jersey Beauty is now (late in January) not only well clothed with its polished foliage, but is bearing such quantities of red hips in thickish bunches that its whole effect is highly ornamental. Reine Olga, that good red Rose that makes yearly growths 12 feet to 15 feet long, will be in fine foliage through February and even later. Garden Ivies are only too numerous, but the very large-leaved *Hedera dentata* and the small marbled *Caenwood* variety are so distinct that they should not be forgotten. *Cistus cyprius* is a fine thing on a fairly high wall, its fragrant foliage turning strangely blue in winter. Shrubs with variegated leaves should be used with caution, to avoid the danger of a

and is much benefited by being trained on a wall with a warm exposure. They are quite vigorous enough for high walls, but are perhaps better seen on those of lesser height. *Garrya elliptica*, with its pretty tassels of midwinter bloom, is also suitable for high or lower walls. Myrtles, in warmest places, should not be forgotten, and the handsome Box, *Buxus balearica*. *Escallonia macrantha* and *E. philippiana* are both beautiful on walls, the latter flowering in late summer when shrub bloom is rare. *Choisya ternata* is one of the best of wall shrubs, and Rosemary, often seen on walls in Italy, should be so used at home. The grey, Sage-like foliage of *Phlomis fruticosa*, a shrub commonly grown as a bush in the open, is capital trained, and still better is the beautiful grey-leaved shrubby Groundsel, *Senecio Grayii*.

Its tiny gold-backed leaves, set on long sprays that quickly grow, make it one of the prettiest things to cut and put with winter flowers in the house. Even *Berberis Aquifolium*, so useful and frequent as a bush in every garden, can be trained on a low wall with singularly good effect.

GERTRUDE JEKYLL, in *Country Life*.

HERBACEOUS PHLOXES FOR SPRING PLANTING.

THERE is such a wonderful wealth of beauty and variety to be found among the modern herbaceous Phloxes that it is not surprising their cultivation is being taken up in many gardens where,



A BORDER OF HERBACEOUS PHLOXES AND WATSONIAS. BOTH MAY BE PLANTED NOW.

patchy effect; but where questions of colour are carefully considered and a harmonious background for flowers of bright yellow colouring is desired, it is well to train on the wall both the gold-splashed *Elæagnus* and the Golden Privet.

Walls from 5 feet to 7 feet high will take shrubs of medium height. One of the best is *Laurustinus*, excellent for wall training and yet but seldom used. All the three varieties well known in gardens are equally suitable, but of special beauty is the May-blooming *Viburnum lucidum*. It is tenderer than the two other kinds, *V. Tinus* and *V. hirtum*,

For lower walls there is still a good choice of evergreen covering, such as several of the lesser New Zealand Veronicas. The taller *Veronica Traversii* is of a size for the wall of medium height, but there is a dwarfer variety of this well suited for the lower terrace. Other New Zealanders, *Olearia Haastii*, *O. stellulata* and *O. macrodonta*, will also be welcome; several kinds of *Cotoneaster*, *Euonymus radicans* and *Daphne pontica*, the last filling the garden with its sweet scent in April and May. *Aucubas* can be used in shady places, and *Cassinia fulvida* must not be overlooked.

a few years ago, they were unknown. Flowering as they do in the autumn, when many wish gardens to be at their best, these Phloxes may be looked upon as the most useful of all herbaceous plants for that season. Their cultivation, too, is simple, providing a few essential points in the tilling of the soil and their subsequent treatment are not overlooked. Above all, these Phloxes need a generous diet, with deeply cultivated soil in which their roots can wander at will and find that coolness which they so delight in during the scorching days of summer. But

coolness of roots must not be taken to mean overhead shade from sun.

The first object, then, when we set out to grow these plants is to select a bed or border that is open to light, free from roots of trees or shrubs, and containing soil that is of good heart, *i.e.*, not too much sand or gravel. This ought to be dug two spits deep, and both spits should have thoroughly mixed with them some partially decayed manure from either the stables or farmyard. After this trenching it ought to be made moderately firm by treading, unless it can be allowed two or three weeks in which to settle before planting is done. Undoubtedly the best time for planting, except where the soil is of very close texture, is early autumn, but quite good results can be obtained from plants that are put in during March. Young plants raised from cuttings are supplied by most nurserymen, and

Jenkins, Tapis Blanc and F. G. von Lassburg (white), Le Mahdi (violet blue), Eugénie Danzavilliers (soft lilac blue), Le Siècle (salmon pink), Etna (crimson scarlet), Paul Martin (china rose), Dr. Königshofer (brilliant orange scarlet, deeper eye), Baron von Dedem (scarlet and blood red) and Selma (pink).

H.

PROPAGATING PLANTS BY CUTTINGS.

THE importance, particularly at this period of the year, of propagation by means of cuttings induces me to send you the following remarks as a further contribution to the discussion on "Cuttings with 'Heels.'" The "heel" to cuttings is in certain instances not without value.

taking place, almost the whole of the soft-wooded material forms roots without even providing the cutting with the time-honoured "joint." It is an asset of value to know, for it takes a longer time to trim such a cutting preparatory to inserting it in its rooting medium than the time occupied in cutting the shoot above a joint and inserting it.

But the method has a further value. To illustrate: Last year I required a very large quantity of *Verbena venosa*, and to supplement old roots some 600 plants were raised from seeds, which it was seen would be very insufficient. These were forced on, and when just large enough were cut off close above the pair of primary leaves. If the cuttings had been made with a joint, time would have failed to have got a plant large enough to allow for it to grow, and to strike and grow on the rooted cutting.

A cutting to root rapidly and with certainty, as already hinted, must be in a proper condition, and also receive the proper treatment. Heat and moisture are enough for the majority of bedding plants at this time of the year, and even Geraniums, if they receive a Pine stove heat, root readily with abundance of water, while, given an intermediate temperature, moisture may prove fatal to success. Hollyhocks are difficult to root in the spring, but when named varieties were in vogue I have succeeded by placing them under hand-lights in a cool house, where they took their own time. The Variegated Ice Plant will root with the loss of only two or three per thousand when placed in a stove temperature and given no water till roots have been formed. Nor need the cuttings have joints.

The success of a batch of cuttings may be destroyed by allowing them to wilt; and it is not unusual to see a man make elaborate preparations from his point of view to ensure success, and, by allowing the cuttings to get dry previous to insertion in the rooting medium, to nullify his labour. Eye cuttings during the summer months are valuable means of increasing such things as Hollyhocks, *Lychnis vespertina* flore pleno, double Rockets and other plants of similar herbaceous habit. Christmas Roses may be increased in the same way, with the difference that it is the rootstock that must be cut up, each piece to be provided with one or more "eyes."

This method has been known in Scotland for very many years.

R. P. BROTHERSTON.



A BORDER OF PHLOXES EDGED WITH ORDINARY WHITE PINKS IN A SMALL GARDEN.

usually give better results than divided portions. I am a great believer in mulching Phloxes during the hot days of summer, and towards the end of May always see to it that a layer of short manure, at least 2 inches thick, is spread between and around the plants. This not only tends to keep the soil cool, but provides considerable nourishment for the plants just when they most require it. Bountiful supplies of water are called for whenever the weather is at all dry, and it is vital that the Phloxes are not neglected in this respect. These, then, are the essential points in the cultivation of these charming hardy herbaceous plants, which are suitable either for large or small gardens, as the accompanying illustrations show. In the large border Watsonias are thinly interspersed among the Phloxes, and the bulbs of these may be planted during March or April.

There are a great many beautiful Phloxes now obtainable, a few of the best being Mrs. E. H.

Some Roses that will not root when the cutting is made by severing below a joint do so when formed with a "heel." But there is a chance of a "heel" cutting forming merely some knobby calluses, due not so much to the "heel" as to some condition of the cutting or the position it occupies.

Far better than using hardened wood for cuttings is to employ young shoots that are becoming firm but not too hard, the proper condition being only possible to determine by observation and experience. I have rooted quantities of such things as Deutzias, Lilacs, Roses, Buddleias, Philadelphuses and such like in this way in a heated propagating-case. A single white Banksian Rose put into my hands a few years ago to increase was found to root with the greatest facility from soft summer side shoots, when ripened wood in the autumn failed.

Summer Bedding Plants.—At the present time, when propagating for summer bedding is

COLOUR CHARTS: WHAT IS WANTED.

THERE are probably few people who garden who have not had rude shocks and awakenings when, for the first time, they have been face to face with stern reality, and the insinuating catalogue descriptions upon which plants or seeds were bought, and upon which visions of loveliness were built, have been found to be sadly wrong and misleading. Glowing adjectives and wonderful colour names, skilfully chosen, have more than once furnished up some rather mediocre bloom that it has acquired in our eyes a distinction which its intrinsic merits

we see with their eyes, and if we are not able to do so it is not wholly their fault. It is the fundamental difficulty of not being in another's skin that causes so much confusion. Where would we be without a standard yard or a standard pound? I think, where Moses was when the light went out. Civilly, we would not like it at all; horticulturally, we do not seem to mind very much. Few use what means there are at hand to remedy this. It may be, of course, because they are unknown, or it may be because the remedy appears as bad as the disease. No colour chart that has yet appeared is *quite satisfactory*. Attempts, however, have been made to meet this need of the gardener—to give him, in other words, a standard, so that a Regel in Russia, a Mrs. Frances King in America and a Miss Jekyll in England would know exactly the shade of rose (?) of Krelage's beautiful new Tulip Siren, which took us all by storm on its first appearance last spring.

The bibliography of horticultural colour charts is a short one. The first attempt seems to have been made by the editor of the *American Florist*, who issued, as a supplement to the issue of that journal for August 17, 1895, "A Chart of Correct Colors of Flowers," arranged by F. Schuyler Mathews for the use of florists. I have it before me as I write. It is a single sheet, 12 inches long by 8½ inches wide, and contains thirty-six distinct shades. Some years later Mr. A. Blanc of Philadelphia issued a "Colour Guide for Florists," compiled by one "A. Kohn." It contains 140 shades, which are printed on two sheets, each, roughly speaking, 12 inches by 8 inches.

Then came the "Répertoire de Couleurs," issued in 1905 under the auspices of the French Chrysanthemum Society. At the present moment it is the only one that is at all well known in England. It is undoubtedly a great production, inasmuch as it contains samples of upwards of one thousand four hundred shades, printed in blocks of 1½ inches by 1½ inches on 365 sheets. Colour names are given in English, Italian, Spanish, French and German, and a typical flower of each is indicated.

Another attempt is the "Code des Couleurs," published in Paris in 1908 by Paul Klincksieck and Th. Valette, "à l'usage des Naturalistes, Artistes, Commerçants et Industriels." Seven hundred and twenty colours are given, in twelve groups, each of which is named, while all the individual shades are simply numbered. The whole are bound in book form, which is certainly, in my opinion, far and away the most handy form in which to have a "chart." The different colours are cut out of sheets and *pasted* on the pages. I have sometimes found it useful for reference, but I do not use it as a rule. Probably I would have done so more frequently had not "Color Standards and Nomenclature," by Dr. Ridgway, Curator of the Division of Birds, United States National Museum, appeared in 1912, just when I was beginning to use a colour chart as an everyday affair. It, too, is in the form of a book (small 8vo), but instead of 720 it contains 1,115 named colours, gummed on fifty-three pages. Much labour has been spent on its production, and if only there were more variations given of certain tones (I think this is the correct word) of red, there would be little to be desired. It is handy, and the dull surface of the colouring seems more natural than the glazed one of the did not warrant. I by no means blame catalogue makers as a class. They do their best to make

"Répertoire." The fly in the ointment here is the unaccustomed names that Dr. Ridgway has given to the various hues, tints, tones and shades. I guess we must be Americans to understand them. Who can form straight off a visual image of Bradley's Blue or Niagara Green? Were it possible to simplify these and to add some more reds, there would be but little fault to find. Correspondents in the States tell me that the learned author is about to revise the present work and to bring out another, but a smaller one, for garden use, which is to contain thirty-six new colours, and which will exclude certain broken shades of greens, green-blues and greys, and also the darkest shade in each series, of which there are 159. As I have been asked to send suggestions to Dr. Ridgway, one feels that an expression of their views on the part of those interested would be of much value and use. On the principle of two heads being better than one, I hope the Editor will allow me to ask for a few words from such people. I may add that the colourings of the Tulips at the trials at Wisley are being determined by Ridgway's Chart, and that the opinion of the user pretty well coincides with my own, viz., that it wants more reds, simpler colour names, rather larger colour slips, and to be sold at a lower price.

A great deal of interest in this question of colour charts is being taken in amateur gardening circles in America. Among others, Mrs. Frances King and the Shedowa Garden Club of Garden City, Long Island, are taking up the matter with much zeal.

JOSEPH JACOB.

SPRING MANURING FOR VEGETABLE CROPS.

ANonus lies upon every cultivator of economic crops to leave nothing undone necessary to a maximum yield in the growing season now imminent. In a favourable year the most potent factor contributive to heavy yields is manure. While the average farmer or market grower is alive to this fact, there is yet a goodly percentage of the occupiers of small areas of land who do not effect the enrichment of their soil to the extent desirable. This is attributable to a variety of causes, in which monetary stringency and lack of opportunity loom large. A special endeavour is, however, now needed in the interests of all.

While it is not prudent to allow work that can be done in the winter to encroach unduly upon a very active period in gardening, there are yet many good reasons for deferring manuring until now. The avoidance of loss of plant food contingent upon winter manuring is not one of the least of these. Of the phosphatic manures, basic slag may still be used at the rate of 2oz. to 4oz. per square yard for such late-maturing vegetables as Kidney and Runner Beans, late Peas, Turnips and summer-planted Brassica. Superphosphate is, however, the best form of phosphate for present use. It may be sown in the drills for Potatoes, Peas and Beans, but where crops needing shallow drills are concerned, the "super" is better sown broadcast. The quantity to apply will depend upon the percentage of soluble phosphate the grade contains. If this ranges from 26 per cent. to 30 per cent., 2oz. to 3oz. per square yard will be sufficient; costlier grades containing 35 per cent. to 40 per cent.

will for economic reasons be used more sparingly, i.e., 1½oz. per square yard. Bone-meal is another important phosphatic manure, and relatively expensive for open ground work. Costing more than double as much as superphosphate, its application ought not to exceed three-quarters of an ounce per square yard.

Potash manures will be practically unobtainable this spring. Where fortunate circumstance finds a gardener with a reserve of sulphate or muriate of potash, this should be utilised at the rate of half an ounce to three-quarters of an ounce per square yard, on ground destined for such potash-needing crops as Potatoes, Beet, Parsnips, Carrots and Turnips. If it is kainit that is held, then apply it immediately to land intended for the later-growing crops, such as maincrop Potatoes, at the rate of 2oz. to 2½oz. per square yard.

The nitrogenous manures of an inorganic character are quickly exhausted in the soil, and it is a happy circumstance that in one form or another supplies are adequate. The exigencies of the period have in general raised the prices of manures. Nitrate of soda is, however, an exception. This is due to the large supplies that normally go to Germany being to a certain extent available for Great Britain, her Allies and neutral countries. Nitrate is very soluble, hence it is advisable to spread its application over the growing season. Three-quarters of an ounce per square yard can be applied at sowing or planting time, and a slightly reduced amount when the plants are in active growth. Such leaf and stem vegetables as Brassica, Leeks, Onions, Celery and Lettuces are very responsive to this manure. Sulphate of ammonia offers nitrogen at a less cost per cent. than that in nitrate of soda. Curtailed supplies and an increasing demand are, however, rapidly narrowing the difference. Applied now at the rate of 1oz. to 1½oz. per square yard, this manure will benefit all vegetable crops, and is particularly suitable for soils of a heavy nature and not unduly charged with lime. On lime-deficient soils nitrate of lime and calcium cyanamide will be found suitable—the former for dry and the latter for wet districts—used at the rate of 1oz. in the case of nitrate of lime and 1½oz. in the case of calcium cyanamide per square yard. Both should be applied at once.

The highest purposes of cultivation are served in maintaining the humus content of the soil by using from time to time such organic manures as are provided by the stable and farmyard. Used at the rate of from 2cwt. to 3cwt. per square pole, there is no need to resort to inorganic manures, except as supplements to support continuous cropping or substitutes when organic material is scarce. Horticulturists must not forget that rain-washing vastly depreciates the value of organic manure.

Other substances, simple and economic, that contribute to fertility are soot, used at the rate of one peck per square pole; wood-ashes, which when unwashed by rain contain almost as much potash as kainit; common salt, which, used during the growing season at 1oz. per square yard, enhances the yield of Brassica, Beet and Celery; and finely ground limestone and quicklime, both of which are essential to good tilth, neutralising of sourness and liberation of previously unavailable plant foods. Apply ground limestone at the rate of half a pound, and quicklime at a quarter of a pound per square yard.

Morpeth.

C. W. MAYHEW

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Melons.—When the leading growths have covered about two feet of trellis, they may be stopped. Those laterals which are showing fruit should be pinched at the second leaf beyond the fruit and secured neatly to the trellis. When there are two or three flowers fully developed on a plant, they must be fertilised. When it can be seen that sufficient fruits have set, all superfluous growth must be regularly removed and everything done to assist the fruits to swell freely. The plants will require more water when the fruits are swelling, and during the final stages plenty of stimulants must be afforded.

Strawberries in Pots.—Plants which are swelling their fruits must be liberally fed with manures. Liquid manure may be alternated with some approved fertiliser. Spray them with lukewarm rain-water two or three times a day till the fruits commence to colour. At this stage more air must be admitted to the house and the atmosphere kept drier.

Early Pot Vines.—When the berries have been thinned, every inducement must be given those left to swell. The roots must be more liberally fed and the temperatures well maintained. The laterals must be regularly pinched and all surplus growth removed. Do not leave more bunches than the Vines can mature perfectly. About eight bunches to a Vine should form a reasonable crop.

Plants Under Glass.

Primula obconica.—Plants of this are most useful for the greenhouse or conservatory. Seeds may now be sown for raising plants for autumn flowering. Sow in pots or shallow pans in a fine, light compost, and cover the seeds lightly with very fine soil. Place them in a warm, moist house, cover the pans with a sheet of glass, and shade them till the seedlings are through the soil.

Primula malacoides.—This is another very desirable subject for the cool greenhouse, and may be propagated now by seeds. It is very easily cultivated, but, when the flower-spikes are throwing up, water must be applied with care, as they are very liable to damp off.

Lobelia tenuior.—For summer flowering, plants may be raised from seed sown now and placed in gentle warmth. When large enough, pot the seedlings into 3-inch pots, in which size they will flower.

Statice Suworowii.—This is a useful plant for the greenhouse. Sow the seeds in shallow pans and prick the resultant seedlings into small pots. They will flower in 4½-inch pots, but they must be treated liberally, or the flowers will be weak.

Begonia Gloire de Lorraine.—If cuttings are available, a batch may be inserted now. Dibble them into pans of sandy soil and place them in the propagating-pit. In the event of cuttings being scarce, leaves may be successfully employed for propagation.

The Flower Garden.

Border Carnations.—When the ground is in suitable condition, the plants which have been wintered in cold frames may be planted out. To give the plants a good start, it is an excellent plan to put a little soil from the potting-shed with each plant. Plants which were put out last autumn should have the soil stirred about them with the hoe after dusting them with well-seasoned soot.

Hollyhocks.—Plants in pots which have been wintered in frames may now be planted out. In case of severe frost, a handful of coal-ashes placed round each plant will keep them safe. The disease which so often attacks the Hollyhock may be checked by spraying the plants with Bordeaux mixture during the early stages of growth.

Agapanthus.—Plants which have been wintered in a frost-proof shed must not be kept too dry at the roots. They should now be removed to a cool house if one is available.

Sweet-Scented Verbenas which are growing in tubs or large pots must have their annual

pruning. They may be kept in their winter quarters till growth is active.

The Rock Garden.—After the heavy rains of the past winter, the roots of many of the plants will need a little fresh soil.

The Hardy Fruit Garden.

Protection of Fruit Blossom.—Some ready means must be at hand for covering Apricots, Peaches and Plums when they are in flower. Here we place two or three thicknesses of fish-netting over the trees, and usually find this answers well. Spruce boughs carefully placed about the trees will preserve many of the flowers, but they must be firmly secured, or much damage will be done during stormy weather.

The Kitchen Garden.

Asparagus.—If new plantations are under consideration, the ground must be prepared at once if not already done. This crop requires very liberal treatment, and nothing short of trenching and well manuring the ground should be attempted. A sheltered situation which is thoroughly exposed to the sun should be selected.

Peas.—A sowing of Early Giant, Gradus or some other reliable hardy kind may be made now, and if fortnightly sowings are made from this date, a continuous supply of pods should be assured.

Broad Beans.—Another sowing of these may be made now to follow the early sown plants.

Seakale.—The roots or thongs which have been prepared for planting may be put out any time now when the ground is in condition.

Celery.—The main crop of Celery may be sown within the next fortnight. Sow thinly in a light soil in a cold frame. When the seedlings are through the soil, give them every inducement to make strong, healthy plants.

Tomatoes.—Seeds may now be sown for raising plants for growing outdoors. A free-setting variety of hardy constitution must be selected for this purpose.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

Plants Under Glass.

Violets.—The ground where these are to be grown ought to receive a good dressing of manure when being dug. Before planting, a covering of leaf-mould should be lightly forked in near the surface, and if the soil is very stiff or heavy, the addition of some sand is an advantage. If possible, deal with the planting during the next few days. For such sorts as Marie Louise, Neapolitan and Mrs. J. J. Astor allow from 10 inches to 1 foot between the plants, while for varieties like Princess of Wales and La France 15 inches to 18 inches will be necessary.

Zonal Pelargoniums.—For winter flowering, plants must be propagated now. Cuttings can be put four or five in a 4-inch pot and kept close until rooted.

Anchusa italica.—If young plants which were raised from seed last spring were potted up during September or early October, they may be brought indoors and grown on in mild heat, as they make a very nice display in the greenhouse during April and May. The Dropmore variety and Opal are both very fine for this purpose.

Browallia speciosa major.—This is one of the finest greenhouse flowering plants, and is very easy to cultivate. Sow the seeds in heat, and when large enough prick out the seedlings two or three together in a 3½-inch pot. Later they may be potted into 5-inch and 6-inch pots, in which they will continue flowering for two or three months. This subject will also flower freely during the winter if cut back slightly during the autumn and watered with care until new growths are well advanced.

Fruit Under Glass.

Melons.—Seeds should be sown to produce plants to succeed the early batch. As mice quickly discover the newly sown seeds, precaution

must be taken against this. Sow singly in 2-inch pots and place in a case with a brisk bottom-heat. As soon as the plants appear, remove to a shelf near the glass, so as to encourage a sturdy growth. Two very reliable free-setting varieties are Hero of Lockinge and Eminence.

Vines.—Such Grapes as Muscat of Alexandria and Mrs. Pince, which require a long season of growth; should now be started by closing the houses in which they are growing, so that the berries may be allowed to colour well before the sunshine of August and September is over. A little fire-heat at night and during dull days will be sufficient until growth is visible.

The Kitchen Garden.

Turnips.—A small sowing of Turnips may be made in a warm, sheltered border; but as there is much risk yet from frost, it should be followed by another sowing, as early sowings are not to be relied upon. Both Snowball and Early Milan are good early varieties.

Onions.—The main crop should be sown as soon as the ground is in fit condition. The ground having been dug or trenched some time ago, it ought now to be raked over roughly first, removing any large stones; then be made firm by tramping, and finally raked over with a fine steel rake. The drills should then be drawn out 1 foot to 15 inches apart. After the seed is sown and covered, the ground may be made even and level by using the back of a rake.

Parsnips.—To get large roots, special preparation of the ground is necessary. The lines should be 18 inches apart, and holes made every 9 inches with a crowbar; these can be filled with some light sandy soil, and four or five seeds may then be sown on each.

Lettuce.—If seed is sown now in boxes indoors, plants will be forthcoming ready to plant outdoors towards the end of this month. The base of a wall or glass-house with a south aspect should be reserved for this crop.

The Flower Garden.

Roses.—Teas and Hybrid Teas which have been protected during the winter with Bracken or straw should now have the protecting material removed without further delay. If this is neglected, some of the lower buds advance prematurely, and so waste the energy of the Rose bushes. Any blanks which occur ought to be made good at once.

Sweet Peas.—Trenches which were thrown open early in the winter should now be filled in, so that the soil may be in a firm, settled condition before planting-time arrives. Too much farmyard manure ought not to be used, and all that is employed must be broken up and well mixed with the soil during the filling in of the trench. Bone-meal, soot, leaf-mould, lime, chopped turf and some reliable Sweet Pea manure should be included. See that all the ingredients are thoroughly incorporated one with another. This can only be brought about by repeated turnings of the mixture in the trench. The young plants at present in pots must be kept cool and well ventilated, so as to encourage a firm and sturdy growth.

Ivy Clipping and Laurel Pruning should be finished during the early part of March. Choose calm weather if at all possible for this work. Laurels are best pruned with a hand-knife and not clipped.

Violas.—The lights having been removed from the Viola frames for the past fortnight or more, a start should be made to clear the frames in readiness for occupation by other bedding plants. A border is most convenient for the Violas, which ought to be planted closely together in lines. If a quantity of leaf-soil and sand is added, the plants will root very freely, and so make good material for bedding out later on.

East Lothian Stocks are now ready for pricking out into cold frames. Being fairly hardy plants, they should not be coddled in any way. Stocks resent a free use of the watering-pot, so when pricked out an occasional spray with the syringe will be all that is needed if the frames are kept shut until the plants have recovered from the check.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

SOME GOOD LIGHT-COLOURED FOLIAGE PLANTS.

LOOKING round the alpine-house on a cold, damp winter day reminded one of the usefulness and beauty of many of the plants with light-coloured foliage. Enumerated below are a few of the most striking, beginning first with *Achillea Kellneri*, which has long, narrow serrated leaves. Its beauty of foliage is only rivalled by the pleasing white flowers borne on stems a few inches high over the greater part of the summer months. The *Milfoils* include many varieties indispensable to every rock garden, not only on account of their pretty foliage, but also for their profusion of bloom. A few of the most noteworthy are *A. argentea*, *A. Clavennæ*, *A. Grisebachii*, *A. Huteri*, *A. serbica* and *A. Wilzeckii*.

Anthemis Aizoon, from Northern Greece, has lanceolate leaves covered with down, and bears white Daisy-like flowers in the summer. *Anaphallis formosa*, sometimes called *Achillea Aucheri*, is quite distinct from the foregoing, its flat, delicately formed leaves being of a lavender grey tint and emitting a very pleasing scent; it reaches a height of about nine inches and has snowy white flowers.

Artemisia argentea.—This species grows to about eighteen inches high and has very freely divided leaves covered closely with minute silvery hairs, and bears pale yellow flowers in July. *A. pedemontana* has handsome silvery foliage, grows about six inches high and bears white flowers from June to August. *A. stelleriana* is taller and larger in all its parts than the foregoing. Though of a somewhat untidy habit, it is, nevertheless, a useful foliage plant. It has large lobed leaves of a striking silvery white colour, 2 inches in length, covered on both sides with down.

Corydalis Wilsonii is truly a plant that ought to be in every collection. Of noble and graceful habit, it is deserving of wider culture. The leaves are Fern-like, smooth and silvery. Towards the end of the summer the plant bears a graceful spike of rich golden yellow flowers. It is beloved of slugs, and needs protection here in winter from both slugs and weather.

C. tomentosa is a new and little-known variety, with foliage and habit slightly different from the preceding. The leaves are not quite so erect as those of *C. Wilsonii*, also both stem and leaves are covered with minute hairs. The spikes of pale yellow flowers are produced freely, and have set seed in generous fashion here in the early summer. It is better for protection in winter, either by placing a piece of glass over the crowns or by lifting and placing them in the alpine-house.

To further swell the quota we have *Helichrysum lithospermæfolium*, a neat, shrubby "everlasting" with long, narrow, pointed, white leaves. *H. frigidum*.—This little native of Corsica is a perfect gem of not more than an inch high; its minute, shining silvery leaves are surmounted in May and June by dazzling white flowers. This, without doubt, is one of the choicest of the family.

Origanum Dictamnus (Dittany of Crete) is an uncommon sub-shrubby species 1 foot high, its thick ovate leaves covered on both surfaces with heavy woolly down. A pleasing contrast to the foliage is the slightly drooping heads of pink

flowers in July and August. *Santolina minima elegans*, a little member of the Lavender Cottons, grows about nine inches high, and is of compact habit. It has small silvery grey leaves crowded on upright stems, and is very effective planted in large masses either in the rock garden or border. Lastly, *Teucrium aureum* (syn. *Polium*), a very beautiful prostrate grower with small, pointed, silvery leaves and golden flowers.

In addition to the modest praise given to the foregoing, one ought to mention an additional charm, viz., that of scent, which is possessed by most of those mentioned. For all some slight protection from the heavy rains in the winter months is a great benefit; for some, such as *Corydalis Wilsonii* and *Helichrysum frigidum*, it is here a necessity. Pieces of glass suspended by wires answer the purpose quite well, but the alpine-house has distinct advantages over this latter course. One of them is that of being able to admire some of the choicest of one's treasures in dry comfort when lingering in the rock garden is out of the question owing to the vicissitudes of the weather. To get the best results from the alpine-house, it is essential to give ample ventilation when the weather is at all fine. JOHN G. BROADHEAD.

Wooldale, Thongsbridge, Huddersfield.

TREES AND SHRUBS AS SCREENS.

A VERY frequent necessity in these days is the establishment of a screen of vegetation between the house and one or other of the numerous eyesores with which modern civilisation and an industrial age deface the earth.

Lucky are those whose lot is cast in the outer suburbs, for instance, if they have escaped the doleful experience of waking some morning to find a row of jerry-built cottages, a factory, or a smoke-stack showing its unwelcome beginnings, where previously a pleasant landscape spread before the eyes. The same problem, however, very frequently presents itself in quite rural districts; there is, perhaps, no subject connected with the planting of trees and shrubs on which expert advice is more often sought. The ideal tree for the purpose of blocking out unsightly objects would be one that is of close habit, evergreen and quick growing. But although there are plenty of evergreens that make perfect screens, such as *Holly*, *Holm Oak*, *Box* and *Yew*, they grow too slowly to meet the wants of many people. Life is short and the modern builder is quick, and the middle-aged man is not content, as a rule, to wait twenty, it may be thirty, years for such trees to grow high enough to fulfil their purpose. In such a case, if an evergreen vegetation be insisted on, reliance will have to be placed on the conifer family exclusively. So far as I know, there is no evergreen broad-leaved tree which, in our average climate, will compete in rate of growth with such things as *Douglas Fir*, common *Spruce*, *Corsican Pine* and its varieties, or *Picea excelsa*. In country places a plantation of these with *Scots Fir* added will make as quick growing and high a screen as anything. In hot, dry districts, however, neither *Douglas Fir* nor common *Spruce* is reliable; and *Pinus excelsa*, although it grows a yard a year in suitable places, is not suited everywhere. On the whole, the *Corsican Pine* is, perhaps, the most reliable and unfailing of big, quick-growing evergreens, especially on the outskirts of cities.

Where space is limited, especially as regards width, nothing, I believe, in the conifer family will prove better than the *Servian Spruce* (*Picea Omorica*) or *Lawson Cypress*. The first of these is proving remarkably well adapted for suburban cultivation; it grows quickly, is of dense growth, and it has a slender pyramidal habit which enables it to be planted closely, say, three rows deep, where a single row only of the conifers previously mentioned would have room to develop. In regard to close planting, the same may be said of the *Lawson Cypress*, although it does not grow quite so quickly. But when all is said, none of these quite meets the case near towns, where buildings are apt to spring up, so to speak, in a night. Unless the planter is content to wait (and then *Holm Oak* and *Holly* together, with the two conifers just mentioned, should be planted), recourse must be had to deciduous vegetation. And that I consider will be found nearly always the best, cheapest and quickest; for a deciduous belt, if wide enough and thickly planted enough, makes a very effectual screen in a few years.

In considering deciduous vegetation, one's thoughts immediately revert to the *Poplars*, and it is on them, indeed, that one must chiefly rely. The very mention of *Poplars*, however, will, no doubt, cause some interested in this matter to make a wry face. So I hasten to put myself right by saying I do not include those hybrid *Poplars* which abound to such an extent in the London district and go by such names as *Canadian*, *Black Italian* or *New Canadian Poplars*. "Lout" is perhaps an unseemly word to use in connection with any tree, but I know none that quite so well describes these *Poplars* in the young and half-grown state—their coarse, ungainly growth, their grossness of appetite. For the present purpose their one recommendation is rapidity of growth, which amounts to anything up to 6 feet a year. If a screen must at all costs be obtained in the least possible time, and the width of space for planting is not limited, then the *Black Italian* or *Canadian Poplar* (*Populus serotina*) will fulfil the purpose as adequately as anything. But there are other *Poplars* of better breeding and greater distinction than this that may well be used.

In selecting deciduous vegetation, regard must be had to density of branching as well as to quickness of growth. Many trees would serve our purpose when in leaf or, say, for seven months in the year, but fail when in the leafless state through the thinness of their branching. The *Black Italian Poplar* is one of them. For a narrow belt there is nothing that surpasses the ordinary *Lombardy Poplar*, either for density of branch in winter or quickness of growth. The tree itself is cheap and readily propagated by leafless or winter cuttings, and it may be planted in double or triple lines as near as 8 feet apart. In passing, it may be noted that a double row planted diagonally (or alternately) is always needed for the formation of a good screen, whatever the species used. *Bolle's White Poplar* (*P. alba pyramidalis*) is also a useful tree for a narrow belt, scarcely so fast growing as the *Lombardy*, but broader in proportion to its height and more pleasing to the eye in summer through showing swift flashes of the silvery under surface of the leaves in a breeze.

The comparatively new *Balsam Poplar* (*Populus trichocarpa*) from *Vancouver Island* and other parts of Western North America is likely to prove of great value in this connection. A very handsome tree, with foliage bright green above and bluish white beneath, diffusing a balsamic odour

in the spring, it is also of splendid vigour. I know a tree that in fifteen years was well over fifty feet high. Then there is that interesting form of Black Poplar with downy shoots (*Populus nigra* var. *betulifolia*), much denser as well as neater in habit than the Black Italian or *P. nigra* itself. There may also be mentioned the Berlin Poplar (*P. berolinensis* or *P. certinensis*), a tree of slender columnar growth, very popular in the outskirts of the Prussian capital. Although a hybrid, it exists in both sexes, the male being preferable and growing 3 feet to 4 feet yearly. The grey Poplar of the British Isles, a vigorous and handsome tree, is worthy of more notice than it gets, and there may be others, but sufficient has been said to show that the ousting of every other Poplar by the Black Italian is not justified.

From their nature, trees with small leaves make a better winter screen than do large-leaved trees, because their branching is closer. A Catalpa, for instance, or a Magnolia, a Walnut, Hickory or Ailantus are of little use for a winter screen, because their leafy canopy needs proportionately fewer supports. One of the best small-leaved trees is the Wheatley or Jersey Elm (*Ulmus sarniensis*), a tree of pyramidal growth, densely twiggy, and if not rampant like the Poplars, still, a quick grower. Its habit makes it suitable for close planting. The common Birch again has the same merit of density in winter, added to which its unsurpassed grace of habit and its silvery trunk should gain it a place in any screening belt of medium height.

In the foregoing notes the chief consideration in view has been to suggest the best trees for a high screen of vegetation—anything, say, from 35 feet to 60 feet high. If one of only half that height is needed, the object can be attained not only more quickly, but with much greater choice of material. Some of the first-class nurserymen can, as a matter of fact, supply deciduous material quite safe to plant up to 12 feet or 15 feet high. It is only necessary to mention a few to indicate sufficiently the class of tree to plant. In the *Prunus* tribe the fastest growing is *P. Mahaleb*, but the double-flowered Bird Cherry may also be recommended. Mountain Ash is useful, and, as uniting attractiveness with quick growth, the following may be noted: *Pyrus baccata* and *P. pinnatifida*, *Acer dasycarpum* and *A. platanoides*, *Æsculus carnea*. In places with a climate of moderate mildness, *Cupressus macrocarpa* and *Eucalyptus Gunnii* are useful evergreen trees, because of their rapid growth. Of a more shrubby type and adapted for outside or front places, the following list is offered: Deciduous—*Cotoneaster frigida* and *C. bacillaris*, *Genista virgata* and *G. cinerea*, *Philadelphus grandiflora* and other species (very useful in the dense interlacing mass of branches up to 12 feet high), *Berberis aristata*, *Cornus alba*; evergreen—*Cotoneaster buxifolia* (a splendid "block" up to 8 feet or 10 feet high), *Escallonia exoniensis*, *Ligustrum lucidum*, *Rhamnus alaternus*, *Elæagnus pungens*.

It sometimes happens that where big trees exist on the outskirts of the garden, their lower branches have disappeared, and thus leave open to the view beneath them mean buildings, outhouses, or other unsightly objects beyond. One of the most difficult problems in gardens is the filling up of vacant spaces beneath large trees, especially greedy-rooting ones and those whose canopy is so close as to make heavy shade during the summer. Few shrubs can withstand the lack of moisture and of light. Best of all, undoubtedly, is the *Aucuba*,

a plant whose capacity for thriving beneath such trees as Horse Chestnut and Lime is astonishing. The common Privet is good, but better is the oval-leaved one, because it retains its foliage longer. Of dwarf things the Butcher's Broom is about the best in very dense shade. When the shade is not so deep, as, for instance, under trees like Oak and Elm (it may sometimes be advisable to remove a lower branch or two to let in light), a greater variety may be got to grow, such as Holly, Box, Pontic Rhododendron and common Mahonia. But on the whole there is little choice. Such a position is about as evil a one as a shrub can be doomed to live under. If a presentable front of greenery on the garden side can be attained, the planter may well be satisfied.

W. J. B.

HARDY FERNS FOR SHADY PLACES.

IN a great many gardens there are numerous situations where, owing to the shade of adjoining buildings, walls, or overhanging trees, the majority of flowering plants refuse to thrive, and consequently these places are, more often than not, far from attractive for the greater part of the year. This ought not to be. In the many and varied families of hardy Ferns we may find beautiful and interesting plants that can, with a comparatively small amount of trouble, be induced to grow well in such places and give us their graceful fronds in abundance for many months of the year. Apart from their usefulness in transforming erstwhile ugly spots into dales of beauty, these hardy Ferns are well worth a place in the best gardens, because no other plants will provide us with such an atmosphere of refreshing coolness on a scorching hot day in midsummer. Nor must we forget their winter beauty. If the dead fronds are allowed to remain *in situ*, as they should be, until well into the spring, they provide quite a study in russets and varying shades of brown during the dull days of winter, when interesting features in the outdoor garden are none too plentiful.

Another feature that ought not to be overlooked when hardy Ferns are under consideration is their almost unique suitability for association with flowering plants that either appreciate fairly dense shade in summer or which flower early in the year, when the biting blasts of the slowly lengthening days sweep over the land, and when the shelter of the dead fronds is so welcome to their floral neighbours. One has vivid recollections of the companionship of a riotous mass of hardy Ferns and stately Foxgloves in a woodland glade, where shade and moisture, with an abundance of decaying vegetable matter in the soil, were evidently highly appreciated by the twain. But even more vivid is the recollection of a woodland scene in the cold, almost cheerless days of January and February, when Snowdrops, Scillas, Christmas Roses, hardy Cyclamen, the dainty little *Narcissus minimus* and its larger, though almost equally early, *confrère*, *pallidus præcox*, were nestling their flowers contentedly in the curled russet fronds of the Ferns. Such a scene is possible in every garden where tall trees, excepting Beeches and those of an evergreen character, are present. A splendid object-lesson in this style of growing hardy Ferns may be seen any day at Kew, at the foot of the mound whereon the storks make their nest and which is hard by the Cumberland Gate. There always

appears to me to be something akin to the best traits of Nature in this association of winter flowers and summer Ferns. The one provides protection for the others at the season when it is most needed, and both seem to derive some benefit from the association, though the flowering plants, I think, score the most points.

However we may decide to group or associate our hardy Ferns with other plants, a few points are essential for successful cultivation. It will have been gathered, from what has already been said, that the majority of hardy Ferns suitable for growing in our gardens like a cool situation and soil that is reasonably moist and contains a good proportion of decaying vegetable matter, generally in the form of dead leaves. This is not always easy to arrange, particularly where the plants are to be grown under the shade of trees; but even though the soil there is not so moist as we would like, many of the Shield Ferns or *Polystichums*, the Broad Buckler Fern (*Lastrea dilatata*) and the Lady and Male Ferns will thrive. But previous to planting, the soil should be well and deeply dug—as deeply as the roots of the trees will allow—and if poor, some good fibrous loam, old decayed leaves and some short, well-rotted manure thoroughly mixed with it. Hardy Ferns that are grown under trees in this way *must* have generous supplies of water during hot weather, but this is not, in most gardens, difficult to arrange, and the results will certainly more than compensate the owner for the outlay.

Where the shade is supplied by surrounding, not overhanging, trees, boulders of rock, buildings or walls, and where the soil is naturally moist, the many beautiful forms of the Hart's-tongue Fern will thrive to perfection. The variation among these is really wonderful, yet I must confess that few appeal to me more than the plain-fronded type. In too many the foliage seems distorted and far from what Nature intended this beautiful Fern to be. With its roots almost in water, that most noble of all hardy Ferns, the Royal Fern, *Osmunda regalis*, and its dwarfer variety *gracilis*, will make a stately feature in the shaded garden. One of the most pleasing features of a rock garden in summer is its moist corner bedecked with hardy Ferns, or the tumbling cascade, the sides of which are fringed with swaying, graceful green fronds of perhaps that gem of hardy plants, the Killarney Fern, the foliage of which must ever be covered with a film of moisture to preserve it from the least suspicion of a drying wind. The subject is one that could be pursued indefinitely, so numerous and varied are the Ferns which are hardy with us; but enough has been said to draw attention to their usefulness and attractiveness at all seasons.

W. F.

The Birmingham Flower Show, 1915.—The committee of the Birmingham Horticultural Society are an enterprising body of men who are not content with their exhibition merely at usual. They are issuing this year the most attractive schedule of prizes the society has yet issued, and in it is announced that as an appreciation of the society's progress the Council of the Royal Horticultural Society are sending a deputation to the Birmingham Flower Show, which is to be held on July 16 and 17, when the much-prized additional Royal Horticultural Society's awards will be made to meritorious exhibits. The secretary is Mr. William G. Carradine, 36, Hamstead Road, Birmingham.

THE GARDEN.

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MARCH 13, 1915.

NOTES OF THE WEEK.

The Earliest Large-Flowered Daffodil.—On Friday of last week we were pleased to find some open flowers of *Narcissus pallidus præcox*, which is the earliest of all the large-flowered set to blossom outdoors. Its pale yellow flowers are very welcome as an earnest of other and bolder forms, and one can only regret that it does not increase more rapidly. In many gardens it actually deteriorates, but, even so, it is worth while expending something on a few fresh bulbs each autumn.

Maidenhair Fern Fronds from Queensland.—A movement is on foot for the importation of large quantities of dried fronds of *Adiantum formosum* from Queensland. This plant, we understand, is found in large quantities in the scrub of Northern and Southern Queensland. As Maidenhair Ferns can be so easily grown in quantity in this country, we do not think there is likely to be any great demand for dried fronds.

Trial of Spray-Nozzles at Wisley.—The attention of makers of, and dealers in, spraying machinery is drawn to the trial of spray-nozzles to be carried out at Wisley this year. Nozzles to be tried must be sent to Wisley by March 31. Entry forms, one of which must accompany each nozzle, may be obtained on application to the Director. Awards may be granted by the Council to meritorious nozzles, and a report of the trial will appear in the Journal of the society.

Alpines Under Glass.—One of the most interesting features at Kew just now is the little span-roofed house at the north end of the herbaceous ground. This is devoted to plants of lowly habit, many of them natives of mountainous regions, and under the shelter thus provided they are able to develop to the full the exquisite beauty of their blossoms. Mr. Irving, who is in charge, has this year been particularly successful with many choice plants, notable among them being the rose-coloured Saxifrage that was shown before the Royal Horticultural Society last week as *S. burseriana rosea*. As it is a hybrid, we believe that it will in future be named *S. Irvingii*. Saxifragas *Faldonside* and *Boydii* (yellow) and *S. bursiculata* (white), with the glorious white

varieties of *S. burseriana*, are other gems to be seen in this house just now.

Russian Kale: A Choice Vegetable.—On more than one occasion we have drawn attention to the value of Chou de Russie, or Russian Kale, at this season. Now that everyone is making an effort to grow more vegetables, we strongly recommend them, when making up the seed order, to include a packet of seed of this Kale. This need not be sown until the end of the month, or at any time during April, the plants being subsequently set out 18 inches asunder in rows 2 feet apart. It is a peer among Kales, and as it comes in for use now, before the

common Snowdrop are numerous, some of the best being *flore pleno*, the well-known double kind which grows so freely; *Imperati*, a strong-growing, early flowering form with erect leaves and larger flowers than the type; *octobrensis*, which only differs in flowering in the late autumn; *poculiformis*, remarkable in having both the outer and inner segments nearly equal in size; and *Sharlockii*, a curious form, the outer segments of which are tipped with green, while the spathe is very long and divided into two parts.

An Easily Made Rustic Support.—A few days ago, when visiting the garden of a friend, we were interested in a simple rustic support that he had

erected for Loganberries and similar fruits. This consisted of ordinary agricultural wooden hurdles, such as farmers use extensively. These are about five feet high, and to give them additional height they had been raised 1 foot from the ground and supported by stout wooden posts. The foot of space left at the bottom was no detriment, as the long rods of the fruits do not need supports at that point. A rustic fence or support such as this is easily made, and could be utilised for rambler Roses or any other strong-growing plants. If treated with creosote a few weeks before the canes were fastened to them, the hurdles would last for years.

A Message from French Horticulturists.—In reply to the resolution passed at the annual general meeting of the Royal Horticultural Society, and reported in a recent issue, the following has been received by the Council from the

Société Nationale d'Horticulture de France: "Your kind letter of February 5 has been read at the meeting of the Conseil d'Administration, and also at the last general meeting of members of the society. It was very encouraging to our horticulturists to know that our colleagues of Great Britain took such a keen interest in their misfortunes, and that they even proposed coming to their assistance when the time arose for re-establishing destroyed horticulture. Kindly ask your society to receive our most sincere thanks and accept same for yourself, for this expression of brotherhood, with whom we are happy to enjoy such amicable relationship."



A GROUP OF THE COMMON SNOWDROP (*GALANTHUS NIVALIS*) GROWING IN GRASS, WITH IVY IN THE BACKGROUND.

spring Cabbages, it should find a place in every garden.

Snowdrops in Grass.—Such flowers of the early spring are always attractive, whether grown in the rock garden or border, and especially in the grass. One of the best kinds for the latter purpose is our native plant, *Galanthus nivalis*, a group of which is shown in the accompanying illustration. Where the grass is too strong, they will not thrive so well; but under and in between trees, where the grass grows thinly, the bulbs increase rapidly, and soon form large tufts. When planting, the bulbs should be buried deeply, especially in light soil. The forms of the

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Home-Grown Vegetables and Our Food Supply.—I have read with very great interest the articles on "Home-grown Vegetables and Our Food Supply" which have appeared in your recent issues, and should like to take the opportunity of saying how thoroughly I endorse the excellent recommendations put forward. Specially to be commended is your suggestion as to how local horticultural societies could help. By members increasing their own vegetable cultivation, a good example is set to others who may have available ground, but who are somewhat uncertain as to what should be planted.

I have for some time endeavoured to point out to gardeners and farmers how they may do their country invaluable service, and, incidentally, earn additional profits for themselves, by sowing and planting such additional crops as will increase the country's stock of food during the summer and autumn, as well as during the next winter.

Such crops as I allude to will necessitate extra labour, but the general opinion now prevails that the economic conditions already existing in Germany must—apart from naval and military successes—bring the war to an earlier termination than was anticipated four or five months ago, and if that proves to be the case, there will be a vast number of men on the labour market for whom no regular employment can be procured immediately. I would urge, therefore, that the question of labour should not itself be considered a sufficient reason for neglecting to take such steps as are necessary to secure an ample supply of all such green crops as may prove invaluable for supplementing the food supply of the country. Those living in towns and the suburbs of great cities know to their cost that vegetables of all kinds have greatly risen in price, not perhaps due to any actual scarcity so much as to the inevitable rise in value which must follow when the main articles of food command a greatly higher price, for when such is the case all articles of food rise sympathetically.

We have, however, to remember that whatever ground there is for expecting an earlier termination of the war, there still remains the possibility of unforeseen contingencies leading to a continuation of the war throughout next autumn and winter, and in that event the price of "green crops" must rise far more than has yet been the case.

If prices continue to rise, or if they maintain their present value, there is still a good margin wherewith to pay an increased price for labour, and though labour is scarce, especially in rural districts, a high wage will command sufficient labour when that labour is most needed by the farmer. I consider, therefore, that in laying themselves out to help their country in her time of need, gardeners and farmers will have every prospect of very considerably increased profit accruing to themselves. Many have thought and hoped that the Government would offer some financial encouragement to farmers and market gardeners to extend their crops of vegetables suitable for general food, but I think the prospects of increased profits are in themselves so good that it is unnecessary to wait for Government aid. Such crops as I refer to are the following:

(1) Culinary Peas.—If long-strawed kinds are sown, little expense need be incurred in weeding

the crops, as the land is soon covered and the weeds have little chance of making headway. The picking is laborious, but it is done by piecework, chiefly by women and children, and if prices rule high, as seem inevitable, large returns are certain. But if the market is low, the crops may be left to ripen, and then there is the market open for Peas for boiling, &c.

(2) Dwarf French Beans.—Many thousands of acres of these are annually grown in France and other Continental countries, and large quantities might well be grown in our Southern Counties. Here, again, the picking can be done by women and children.

(3) Runner Beans.—Every allotment holder knows the value of Runner Beans, and in a year when food prices are high, a good return to the farmer or market gardener may be safely reckoned upon. Here, again, the women and children can easily do the picking for market.

(4) Broad Beans.—As the seeds of these Beans are eaten rather than the pods, they provide an invaluable farinaceous form of diet, and would be an excellent substitute (in part) for bread.

(5) Turnips, Swedes, Carrots, Onions, Leeks, Cabbage, Cauliflower, Brussels Sprouts, Vegetable Marrow and Parsnips have only to be mentioned to be recognised at once as extremely valuable substitutes for a portion, at least, of the meat diet which now forms the staple food of so large a proportion of our population.

(6) Potatoes.—Although in a normal season—and when meat and bread are not at war prices—the usual acreage of Potatoes planted in Great Britain may be nearly sufficient for our requirements, yet when it is possible the prices of meat and bread may continue to rise, or even to maintain their present high values, it is obvious that Potatoes may have to play a far more important part in the nation's food than is at present the case. It is, however, necessary to point out that within recent years Potato-growers have had to fight not only against the dreaded Potato disease, *Phytophthora infestans*, but the new and still more destructive wart disease, *Synchytrium endobioticum*, and the Board of Agriculture has rendered invaluable service by tabulating and issuing a list of those varieties which are absolutely immune to this new enemy of the Potato. [This list was published in our issue for Feb. 20, p. 93.—ED.]

I must apologise for the length of this letter, but the subject is one that cannot be dealt with in a few words only, and I have no hesitation in saying that it is one that demands the immediate attention of all who have it in their power to aid their country by taking very simple and easy steps to increase the nation's food supply.—ARTHUR W. SUTTON.

—Respecting the question of increasing our vegetable supply, the Royal Horticultural Society sent out a circular-letter some months ago advocating the same plan, which, I think, horticultural societies acted upon, more or less; and I might mention that this society received a letter some time ago from the Vegetable Products Committee asking for vegetables and fruit that could be spared for the use of the Navy. We are sending packages as often as we can for that purpose, but, owing to the great number of troops billeted in this neighbourhood, there is a large call upon our supply. This society is thoroughly in agreement with your suggestions for increasing our vegetable supply, which is now so much needed.—SAMUEL BROGDALE (Secretary), Saltwood Cottage Gardeners' Society, Saltwood, Hythe, Kent.

A Hint on the Cooking of Cabbage and Spinach.

Being no longer young, I have acquired a good many "wrinkles," and send this little one for cooking Cabbage and Spinach at this time of the year. Put the leaves of Cabbage, Kale, winter Spinach or Spinach Beet through the mincing-machine. It will retain the tough, fibrous midribs and let all the more tender and edible portion pass through. This, when cooked, can easily be rubbed through a sieve, and, with a little butter added, will make a tender and delicious dish of green vegetables.—ANNE AMATEUR.

Manure for Annual Flowers.—For some years past I have been convinced that most kinds of hardy and half-hardy annuals do better when the soil is not heavily manured. Owing to the ever-increasing difficulty in obtaining natural manures, a result of motor vehicles ousting to a large extent those drawn by horses, I, in common with many others, had to set about finding as good a substitute as possible. An enquiry addressed to the Editor several years ago elicited the information that Wakeley's Hop Manure had better be tried, as the spent Hops, in the process of decaying, gave to the soil the humus that forms such an essential part of natural manures. This manure I have tried for nearly all kinds of crops, and found it to answer admirably; but with annual flowers and Roses I have found it to give the best results. It seems to give just that amount of nourishment to the soil that annuals require, producing hard, sturdy stems that flower much more profusely than the more succulent ones that result from natural manures. I dig it into the soil during March, a week or two previous to sowing the seed, or, in the case of half hardy annuals, during May, a few days before planting. For Roses I fork it just under the surface when pruning is completed, and find that it imparts a fine colour to the flowers. I have no financial interest whatever in this manure, and my only object in writing is to bring it to the notice of others who, like myself, may be unable to obtain natural manures.—GEORGE OCKENDEN.

Undesirables for the Rock Garden.—The February 13 issue of THE GARDEN contains an article by "E. H. J." on undesirable plants for the rock garden. His list is useful and interesting, but the inclusion of *Cerastium tomentosum* as an undesirable plant calls, I think, for a little comment. I have several small bits of rockery here, and, to my mind, *Cerastium tomentosum* is not a plant to be despised in the garden. True, it will grow anywhere and everywhere—grow strongly, too—but I think he makes a mistake in saying it is undesirable. The way I grow it here is to plant it where it can have nice room and scramble down over some of the stones. Of course, it wishes to cover up a few neighbouring Saxifrages, but I find it quite easy to deal with. What I do is to cut it back rather severely twice a year, or perhaps oftener; cut it back to a safe distance from my plants. It looks untidy for a time, but not for very long. I do not think townsfolk (who often attempt a bit of rock garden), nor some of the country rock gardening folk who have no large gardening pockets, could do without this plant. Its silvery foliage and white flowers (which are given with such generosity), to my mind, form a pretty and, if the patch be large, a striking addition to the rock garden; and as I find I can keep my plants fairly easily within bounds, I should be the last to admit that *C. tomentosum* is an undesirable plant for the rock garden. I hope Mr. Jenkins does not mind my pointing this out.—E. T. E., Sheffield.

Under this heading, on page 77, "E. H. J." seems to have written somewhat too drastically regarding some things. I quite agree with him that all those plants with roots that ramify in all directions beneath the soil surface, and which in small pieces survive any treatment short of burning, producing fresh plants anywhere if accidentally distributed, are the veriest nuisances; but two things he mentions—*Sedum spurium* (I assume he includes all varieties) and the Vincas—are only abominations if allowed to become so, that is on account of neglect. They may be cut back and not allowed to overgrow other things. There are many rampant-growing plants that will soon, like them, become weeds unless kept by regular attention within the limits assigned to them, such as *Acænas*, *Tiarella cordifolia*, many *Sedums*, *Thymes* and *Veronicas*; yet in some rock gardens, where there are spaces beneath trees which have to be covered, some of these nuisances can be very well employed, though, of course, debarred from any positions where choicer plants will flourish. A list of all "root ramifiers" would be very useful to rock gardeners. In addition to those "E. H. J." mentions, there are *Achillea Ptarmica* and other varieties, *Hypericum calycinum*, *Linaria repens*, *L. r. alba*, *L. vulgaris* and others, and *Zauschneria californica*. These (rightly or wrongly) are commonly found in rock gardens, while the list might be extended to cover shrubs and border plants.—G. R. PHIPPS, *West Sussex*.

Beautiful Annual Flowers: The Malopes.—

The Malope belongs to the bold-growing class of annuals, and so should be grown in fairly large beds or borders to get a true idea of its worth. The illustration shown is of a 30 feet by 4 feet bed, in which the sowing was made in April. On lighter soils (ours is rather heavy) sowing might well be done in March. If the soil is given a good dressing of manure and well dug, little, if any, after assistance in the way of watering and feeding will be needed in normal years. Of course, in seasons like last year and 1911 several heavy waterings with clear water and manure-water would have to be given to maintain a good show of bloom. As the Malope is of a branching habit, besides being of an average 2 feet high, the seedling plants must be well thinned out; and to save later disappointment through sudden thunderstorms, place stout, twiggy sticks here and there between the plants when they are about a foot high. I only know of three colours among the Malopes—alba, blush, and a deep glossy rose colour. All are good, the latter particularly so, and perhaps this is the one called *grandiflora* by some growers. Some people confuse the Malope, the Malva and the Lavatera; but they are quite distinct as garden plants, though belonging to the same Natural Order of *Malvaceæ*.—C. TURNER, *Ken View Garden, Highgate*.

Shows, Schedules and Judging.—"Caledonia" touches upon an important point on page 99, issue February 27, when he chides judges for not withholding first prizes when exhibits are unworthy of such an award. In this direction, however, the Perpetual-Flowering Carnation Society invariably adopts a strong stand, for the simple reason that the appointed judges are all men who know the Carnation from A to Z, and therefore adopt a high standard. For this reason we invariably find that when competition is slack, a number of the leading awards are withheld, even in the special classes where traders actually offer the prizes. As might be expected, one or

two competitors grumble, but I have never known the judges to go back on their original decisions.—T. A. W.

Thanks are due to you for opening your columns to this interesting and, I hope, profitable discussion. I am in full agreement with "Exhibitor." I have seen glaring instances of incompetent judging at shows by men of "position" in the gardening world, instances which were a disgrace to the show. I also agree with him as to the lack of attention to trade exhibitors by show committees, and nothing could be better than the proposed Trades Show to teach them a lesson; for where would any of the "big" shows be without the trade? I agree with "Caledonia" to some extent, though, generally speaking, the prize money is none too liberal, and the exhibit is mostly worthy of the amount offered. As to schedules, these are mostly getting to be budgets of advertisements, which is unfair to both exhibitor and advertisers. Here, again, committees prey upon

judge." While this would undoubtedly be a most desirable innovation, the trouble is how to carry it out. Certainly at some of our large shows it is possible to have a dozen or so experts, who between them would be able to adjudicate the various classes satisfactorily; but how is this to be carried out in the case of the small provincial shows? During the last twenty years I have annually attended a number of local shows and, speaking generally, the positions I have taken part in awarding have given satisfaction. The most difficult people to satisfy are the Pansy growers. Very few professional gardeners nowadays cultivate the show and fancy Pansies, so that a large number of them know little about the points of these flowers. At many small country shows in Scotland the Pansy class is very strongly contested, and this is where trouble crops up for the average judge. Personally, I always endeavour to make a dead set against "overdressed" flowers, and then the keen Pansy man gets on the



A BORDER OF MALOPES. THESE ARE HANDSOME ANNUALS EASILY RAISED FROM SEED.

the nursery and seed trade, and exact amounts out of all proportion to the actual value of the media. For two or three pages of prize classes you find ten or twelve pages or more of advertisements, besides insets, making a bulky volume, and the many advertisements and small number of schedules actually issued renders the medium almost valueless. [Surely the trade are to blame for this.—ED.] Committees might profitably take a lesson from such schedules as York in this respect, and, above all, let them realise that more consideration must be given to exhibitors. Encourage exhibitors, especially the trade exhibitor, and the public will follow.—HAD SOME.

I am in full agreement with most of the views expressed by "Exhibitor," page 26, January 16 issue, but I fear his proposed remedy is scarcely practicable. He says: "It is essential, nay, it is but justice, that a judge should be selected who knows and has practical experience of the classes he has to

warp. Last year I got into trouble with one man for passing over his overdressed Roses. One thing for which the show committee ought to be responsible, but which is usually placed on the shoulders of the judges, is ascertaining that the correct number of blooms, fruits or vegetables, as the case may be, is in each exhibit. Take the case of Sweet Peas. Is it not absurd that a judge has to count the spikes or stems in perhaps a dozen or more exhibits in one class? (I have judged where several hundred vases of Sweet Peas were shown.) This is one reform that is certainly overdue.—C. BLAIR, *Preston Gardens, Linlithgow*.

FORTHCOMING EVENTS.

March 16.—Royal Horticultural Society's Exhibition of Flowers, Plants, &c., 1 p.m. to 6 p.m. Lecture at 3 p.m. by the Rev. Professor G. Henslow, M.A., V.M.H., on "The Passing of Darwinism." Royal Horticultural Hall, Westminster.

SOME ANNUAL FLOWERS FOR SPRING SOWING.

FORTUNATELY, the merits of many of our best annual flowers are now much more fully recognised than they were a decade ago. In a number of the best gardens of to-day, borders or beds are entirely devoted to these flowers, and the charm of the garden as a whole is considerably enriched thereby. The wide range of colour and form that we find in annual

and need fairly dry soil and a sunny position. Seed of a new race of hybrids of this plant, embracing a number of beautiful art colour shades, is also now obtainable.

Among annual Asters, a new variety that I grew last year, and which was generally admired, was named Sada Yakko. It belongs to the beautiful Comet section and has large, graceful flowers of an exceptionally pleasing shade of delicate pink. Among the annual Japanese Pinks, flowers that are not known nearly so much as they deserve to be, Rosalind and Harlequin gave a good account of themselves during the scorching

lings subsequently pricked out and hardened off for planting out about the second or third week in April. Quite a number of beautiful varieties have been introduced during recent years, a few of the best being Sunset, a dwarf plant with orange scarlet flowers; Crimson King; Moonlight, apricot yellow with red flush; Cottage Maid, white and pale rose; Gold Crest, rose pink tinged salmon and orange; and Golden Chamois, soft pink and gold.

A new Stock that I grew last year in quantity, and one which gave us hosts of flowers during the scorching days, was Webb's Crystal White. This was sown in early March in a cold frame, and the young plants put out the first week in May. Quite 95 per cent. of the plants gave double flowers. It is a dwarf-growing variety, specially suitable for bedding, the plants branching into as many as ten or twelve compact shoots, each of which is surmounted by a spike of white flowers which last well.

D. D.

PRIMULA CAPITATA.

WHILE quite one of the most distinct and desirable of the hardy species of the genus, this handsome Himalayan kind is not one of the most tractable from the gardening point of view. In other words,

it is not reliably perennial or calculated, even if so inclined, in some instances to do itself a full measure of justice. Another peculiarity—a drawback, too, if it be not rightly appreciated and catered for accordingly—is in the fact that it is, unlike the majority of its tribe, an autumn-flowering species. Hence from two points of view it requires to be well understood by the gardener. There are other species of the genus not reliably perennial, and which acquit themselves much better when treated on the biennial plan; but these are spring or early summer flowering, and may all come under the general recommendation to "raise them periodically from seeds." The subject of the present note, in being autumn flowering, differs, and its treatment should be on a more rule-of-thumb method.

It is usually recommended to sow *Primula* seed almost as soon as it is ripe, and if this be adhered to with *P. capitata*, and the seedlings grown on quickly, all will be well, and a good late summer flowering ensured. To sow in "spring"—an elastic term, by the way—would be quite wrong in many instances, inasmuch as the plants would be endeavouring to flower at the time of the autumn frosts. Like other Himalayan Primroses, this is of a bog or moisture loving nature, and only reaches its fullest development under such conditions or with those near equivalents—rich soils and shade. Like other vigorous-growing sorts, it is somewhat partial to cow-manure, and given this, with light loamy soils and shade, it appears as happy as in moister ground in fuller sun. The plant attains to 15 inches or so high, the deep Tyrian purple flowers in roundish heads in marked contrast to the silvery white meal with which both stems and calyces are endowed. The species comes freely and quite true from seeds, and is admirably suited to grouping, as the accompanying illustration demonstrates so well. Seed is best sown in early autumn, say, during August, as by so doing sturdy young plants are obtained before winter sets in.

E. H. JENKINS



A COLONY OF PRIMULA CAPITATA IN THE ROYAL HORTICULTURAL SOCIETY'S GARDENS AT WISLEY.

flowers, together with the usefulness of many for cutting when well grown, demand that they shall be given their due, while their cultivation is so simple, and seeds are so inexpensive, that there is really no good excuse for omitting them from even the smallest garden.

Unfortunately, the very simplicity of their cultivation is a stumbling-block to many. We have been so accustomed to the voracious characteristics of our perennial plants that it is difficult always to remember that annuals do not need the same amount of stimulating food. Indeed, to get the best results from most kinds, soil that errs rather on the poor side is essential.

Undoubtedly the best and most useful of the new annuals is the Namaqualand Daisy, *Dimorphotheca aurantiaca*. The hot weather of last year suited this to perfection, and plants that were raised from seed sown in a cold frame in March commenced to bloom in May and continued to do so until the end of September, a feat that no other annual that came under my immediate notice accomplished. The flowers are of the best Marguerite shape, rich orange in colour, with a shiny black ring round the central disc. The plants grow about nine inches high, branch reely,

days of last summer. The seeds were sown in shallow boxes of sandy soil in a cold frame early in March, the seedlings subsequently pricked off, and finally planted out in ordinary loamy soil the second week in May. Both varieties have a good branching habit and double flowers, those of Rosalind being soft pink as they open, changing to a sort of rose colour with age, while Harlequin has white flowers streaked deep crimson.

Annual Larkspurs of the ordinary blue colour are favourites with most flower-lovers, but the various shades of red are as yet but little grown. These are listed by different seedsmen under diverse names, such as rosy scarlet, superb rose and carmine rose. All that I have seen are good, and there is really but little difference in their colours. Some strains are, perhaps, a little better than others. They need precisely the same treatment as that accorded the old blue Larkspurs, *i.e.*, sow them early in April where they are to flower, and thin them freely at an early stage of their growth.

Snapdragons, or *Antirrhinums*, although not strictly annuals, are more often than not treated as such, the seeds being sown during February or early March in warm frames or greenhouses, and the seed-

DAFFODIL NOTES.

Dimensions of Flowers.—I believe the custom of measuring flowers originated with the late Mr. Robert Sydenham and myself. At all events, once upon a time I never used to see anyone else at the game. Now it is becoming more common, as it has been found to be a useful addition to the description of a flower, and to be much appreciated by those who are not able to see the blooms themselves. I am afraid I have not thought much about how or on what plan these measurements were made until recently, when, on consulting "All About Daffodils," by Robert Sydenham, as to the size of certain varieties, I became aware that the several dimensions are given in a different order there from what they are in the "Daffodil Year Book."

Whether every tailor in every shop measures his customers in the self-same order I know not, but it is obvious that in the same shop everyone must do so, or otherwise the cutter-out would have a very perplexing time. Just so with regard to Daffodils; all who measure should do so in the same order. What that should be is relatively of little importance. The essential point is that everyone should adopt the same practice. I am going to ask the Royal Horticultural Society's Narcissus committee to adopt an official one, which, if it did, would, I feel sure, be very generally followed. I will refer to this again as soon as I know what has been done.

Technical Terms Used in Descriptions.—As a "bird of a feather" with measurements, the accurate use of such terms as "hooded," "starry," "imbricated," "claw-shaped," &c., seems an appropriate subject to introduce here. I am quite sure all do not mean the same thing when they use these words. The fact is that as the Daffodil is a parvenu as a "show" flower, sufficient time has not yet elapsed for a generally recognised vocabulary to have been evolved, as has been done in the case of the Tulip and Carnation. Time will remedy this, we may be told, or some might say that if only we would become botanists and adopt their universal language, much of the uncertainty would disappear. But we are not botanists and time is slow. The "line upon line" pace needs accelerating, and as a florist's and a garden flower the Daffodil seems important enough to-day to have a language of its own. A good many years ago I had some correspondence with the late Rev. G. P. Haydon on this subject, in the course of which he referred to the "necessity of plainer language in the description" of Daffodils. The following suggestions are partly his and partly mine. I hope in my notes of this season to get into the way of using them and any others that commend themselves, and which I will explain as they crop up. I have quite an open mind about most of them, so if readers can suggest better terms or will point out any impropriety in the usage of any technical term, I am quite ready to amend my ways. It would be most helpful to have standard words for our descriptions, and so avoid the same variety being described by R. H. Bath

of Wisbech in one way, by Cartwright and Goodwin in another, and by Bourne in a third.

Of the Flower.—"Drooping."—A drooping flower is one like William Goldring, where the face of the bloom points to the ground.

"Hooded."—When the perianth forms a less angle than a right angle with the corona tube, a flower may be said to be hooded. Example: Lucifer.

"Claw-shaped" or "elliptical."—When the segments curve in a greater or lesser degree towards the corona and form part of a circle or ellipse, the flower may be said to be claw-shaped or elliptical. Examples: Peter Barr, Golden Spur and Gem.

"Rectangular."—When the segments stand out at right angles to the corona or tube, a flower may be said to be rectangular. Examples: Tenby Daffodil and Easter.

"Imbricated."—When the divisions of the perianth overlap each other, a flower may be said to be imbricated. Examples: Whitewell, Victoria, Empire and Tenby Daffodil.

"Loose" or "loosely built."—When the segments of the perianth do not overlap or only a very little at their extreme base, a flower may be called loose or loosely built. Examples:

round. Examples: Easter, Empire, Circlet and Ring Dove.

"Rough."—When the segments are not all in the same plane or ellipse, but stand at various angles, or when the surfaces are ribbed and uneven, a flower may be called rough. Examples: Olympia, Torch and Mme. Plomp.

"Smooth."—When the surfaces of the segments are all smooth and in one plane or ellipse, a flower may be said to be smooth. Examples: Challenger, Steadfast and Michael.

"Reflexed."—When the perianth bends back towards the corona, e.g., cyclamineus, Queen of Spain, Dawn and Seville (slightly).

"Twisted."—When the segments of the perianth are curled or twisted between their base and apex, a flower may be said to be twisted. Examples: Princeps, maximus and Frank Miles.

Of the Corona.—"Trumpet-shaped."—When the corona is longer than, or quite as long as, the segments, it may be called a trumpet.

"Cup-shaped."—When the corona is shorter than the perianth segments, it may be called a cup.

"Eye-shaped."—When the corona is very much flattened out, or when, as in ornatus, it hardly stands up at all, it may be called an eye.



A BEAUTIFUL AUTUMN BED COMPOSED OF PALE BLUE AGERATUM AND PINK SINGLE ASTERS.
(See page 126.)

Frank Miles, Countess of Southesk and Santa Maria.

"Starry."—When the perianth segments are pointed and, being free from one another for a considerable portion of their length, stand out more or less at right angles to the corona, the flower may be called starry. Examples: Blackwell and Glory of Leiden.

"Round."—This is the opposite to starry. When the segments overlap from base almost to apex, so that their outer extremities or edges practically form a circle, and when those extremities are themselves rounded, a flower may be termed

"Expanded."—When the top is decidedly wider than the bottom, e.g., Sir Watkin, Bulbocodium, conspicuus and Diana.

"Straight."—When the top of the corona is practically the same width as the bottom, e.g., Queen of Spain, Nelsonii major and Mrs. Robert Sydenham.

"Spreading."—A very pronounced form of expanded, e.g., Whitewell, St. Olaf and Seville.

"Flanged."—When the top of the trumpet bends back, it may be said to be flanged, e.g., most trumpets. Queen of Spain is flanged; King of Spain is not.

"Fluted."—When the sides of the corona appear ribbed, it may be called fluted, *e.g.*, Bernardino and White Lady.

With these and similar words of definition may be joined qualifying adjectives, such as slightly, broadly, very, much, &c.

Conclusion.—"To everything there is a season, and a time for every purpose under the sun." Hence at the beginning of another season there seems an appropriateness in introducing the questions of measurements and technical nomenclature. If only there could be anything like an agreement come to among those who write of the Daffodil in papers and books, and those who compile lists from which the public are invited to buy, it would be a step in the direction of an ideal which would draw all of us into its net—perhaps even "Somerset," although I fancy the smart salesman will always do what he can to make the best of what he has to dispose of. If, on the other hand, a purchaser will take the trouble to keep in his noddle these two little proverbial bits of advice, "Look before you leap" and "Once bitten, twice shy," it will only be himself that he has to blame if he has reluctantly to place any of his purchases in the category which "Somerset," on page 99, described in Hebrew fashion by consonants only. JOSEPH JACOB.

P.S. — My apologies to my readers who want notes on individual varieties. These will begin next week.

A CHARMING AUTUMN BED.

THE illustration on page 125 represents an irregular-shaped flower-bed in the kitchen garden at Westwick, near Norwich, Norfolk, the residence of Colonel Petre. The photograph was taken quite late in September, when the effect was exceedingly pretty. To the left of the picture, and at the back of the bed, pale blue *Ageratum* was massed, so as to form quite a haze of pale lavender blue; while in front, near the pathway, single *Asters* of soft pink shades created quite a good colour picture and, incidentally, provided plenty of flowers for cutting. The bed on the other side of the pathway, and a portion of which is seen on the right of the illustration, was filled with some of the newer pink shades of *Antirrhinums*, and so was perfectly in keeping with the *Asters* and *Ageratum*. As all these plants can be easily raised from seeds sown at the present time, this note and illustration may, perhaps, suggest some simple colour combinations to other readers. It would, I think, be interesting if other readers would send notes and photographs of good colour effects, as these would prove a useful guide to amateurs when planning their gardens,

T. S. H.

THE CULTIVATION OF ANNUAL STOCKS.

IT would be difficult indeed to find any annual flower that is more highly appreciated than the sweet-smelling Stock. Its appearance always brings vividly to mind an old-world garden that existed in one's childhood days, when spare pennies were expended on packets of seed from the local seedsman, the chief merits of which were the brilliant coloured illustrations that nearly covered the front of each. Ten-week Stock always had to be included, and the instructions on the back of



ADMIRATION STOCKS GROWING IN A BORDER BENEATH A DINING-ROOM WINDOW. SEED MAY BE SOWN DURING MARCH.

the packet told us that the seed must be sown thinly in pans or boxes of friable soil, placed in a warm frame or greenhouse, and the seedlings subsequently pricked off into other boxes or pans of light soil.

Alas! these instructions were seldom followed. "Friable" was not included in childhood's vocabulary, and "pans" called up visions of an irate cook who threatened our invasion of her domain with a deftly wielded kitchen utensil of that name. But still, a few fragrant Stocks, although mostly singles, were reared, with the aid of a broken pane of glass laid over a fairly deep box.

In more recent years annual Stocks have undergone considerable change, and one must admit that it has been a change for the better. In place of, or rather in addition to, the stiff, short-lived Ten-week varieties, we now have the set that seedsmen list as Intermediate, a race of plants that, it is true, commence to flower a little later, but make up for this by continuing the display well into November. And they are much more graceful than the annual Stock of our childhood. Bold plants they are, attaining a height of nearly eighteen inches, and branching so freely that one needs to plant them quite a foot apart.

Those shown in the illustration are a strain that Messrs. E. Webb and Sons send out as Admiration Stocks, a fitting name for some very beautiful flowers. In separate colours, such as almond blossom, white, rosy lilac, flesh colour and violet, these Stocks can be had, but personally I prefer them all mixed. Shocking bad taste, no doubt; but, after all, what is the use of having a garden of one's own if one's likes and dislikes cannot be pandered to! I think the craze for separate colours is being much overdone, and where the flowers are of quiet hues, such as those enumerated above, a mixture of them all gives me, and, incidentally, most of my gardening friends, far more pleasure than a mass of, say, white or violet. But everyone to his own taste.

The plants illustrated were raised from seed sown in boxes of sandy soil towards the end of March last year, and placed in a cold frame that was well ventilated on all favourable occasions as soon as the seedlings were above the soil. When about an inch high, these were transplanted 3 inches apart into other boxes, and planted out in the border the first week in June. Quite simple, and a good use to which to put the cold frame.

Respecting the soil in which to grow and flower these Stocks, I find that they are not at all particular, so long as it is well and deeply dug and contains a fair amount of well-decayed manure. This latter is essential, not perhaps so much for the nourishment it

yields as for the coolness that it imparts to the soil during very hot weather. As to situation, anywhere that is open will do, though I must confess that I like to have them round the dwelling-house, so that their delicious, old-world fragrance can be inhaled through open windows and doors. The little border illustrated is situated immediately beneath the dining-room window. If additional fragrance is needed around the house, and it is almost impossible to have too much, sow Mignonette, Night-scented Stock, and p'ant Sweet-scented Tobacco. The last two are so good during the evening, when their flowers open.

C. O.

HARDY ANNUALS AMONG SHRUBS.

AMONG the varied positions in which hardy annuals may be effectively planted, the accompanying illustration of Godetias depicts a valuable instance. When planting a new shrubbery border, or remodelling an old one, the operator may choose to do one of two things. Many cultivators plant the trees and shrubs fairly close together to secure an immediate effect, cutting out or transplanting a few from time to time as they become crowded. To this method we have the alternative illustrated, namely, planting the shrubs or trees which are to remain permanently, and growing hardy annuals for a few years among them till they are large enough to occupy practically the whole of the ground.

It will at once be seen that by this method the permanent shrubs are able to grow and develop their full beauty unhampered by others close by. Another consideration is that from July to September, when the annuals are flowering freely, the season for blooming of most trees and shrubs is past. Besides providing plenty of colour in the pleasure grounds, most of the hardy annuals, when used in quantity, will supply armfuls of flowers to cut for indoor decoration.

Soil Preparation.—Having prepared the ground well for the shrubs, beyond raking the surface soil fairly fine and level previous to sowing, little or no preparation will be necessary the first year. In succeeding years, or in alternate years, it is worth while digging in decayed farmyard manure some time during the winter, or in the autumn, previous to sowing. This will benefit both the shrubs and annuals. Whether the seeds of the annuals are sown in the autumn or the spring is a matter of convenience and opinion. When ample space permits, both methods may be practised; but if only one is chosen, sow in spring when the weather is favourable about the end of March or early in April. Plants from this sowing naturally flower later in the season than those sown in the autumn, at a time when there are fewer trees and shrubs in blossom. With this method of growing annuals it is usual to sow where the plants are to flower, the work of transplanting in such large quantities being out of the question. Thinning is very necessary, though one need not be quite so thorough here as in the herbaceous borders. Always leave ample space round the shrubs to prevent the annuals interfering with their growth.

The Best Kinds.—A selection of the best hardy annuals to grow in this way should include Godetia Double Rose (illustrated), producing long sprays of rose pink flowers on plants 2 feet to 3 feet high; Double Crimson, and Lady Albemarle (white). *Clarkia elegans* Firefly (rosy crimson), Double Salmon Scarlet, Snowball (white) and Double Salmon; all these sorts grow 2 feet to 30 inches high, producing a profusion of double

flowers. Most annual Poppies are suitable for the purpose in view, the best being the Shirley Poppy, *Papaver commutatum* (umbrosum), the scarlet and black Poppy and the Double Opium Poppy. The single Chinese Aster, *Callistephus sinensis*, when grown in quantity, is a lovely sight during September and October. Growing about eighteen inches high, the plants produce quantities of flowers in numerous shades of mauve, blue and pink, as well as pure white. One of the richest effects with annuals is produced by an extensive planting of the double Pot Marigold, *Calendula officinalis* Orange King. The plants grow a foot high, thrive in comparatively poor or rather dry soil, and last in flower for a lengthy period. To this Lemon Queen, a lemon yellow variety, provides a pleasing contrast. In mixture or distinct colours the annual Candytufts deserve attention. *Salvia Horminum*, the Blue Beard Salvia, is very showy with rich purple bracts, and grows 18 inches high. The Sweet Alyssum, Mignonette, Larkspurs,

I do not feel that the trial was satisfactory, and shall endeavour to give them a fairer trial this year. The pieces taken off were the first or main growths, which were removed when the basal buds began to develop. A better plan would be to take some of the basal growths when sufficiently long, as the older growths do not seem to get away well.

The cuttings were rooted in a box of sandy soil stood on the open staging of a cool greenhouse. After rooting, the top buds broke out first. Whether this would be the case if younger growths were selected as cuttings I have yet to learn. I do not feel very confident that plants from cuttings would rival, or even equal, those procured from seeds, but the subject is one well worthy of trial, and if others will grow a few plants from cuttings—without, of course, depending on them—we might find out what advantage, if any, there is from this method of propagation.

Another trial which I made last year, but which,



DOUBLE ROSE GODETIAS GROWING BETWEEN YOUNG SHRUBS.

Collinsia bicolor, *Eschscholtzias* and *Cornflowers* are also adapted for the purpose in view.

In the illustration it will be noticed that some of the plants have single flowers. This is due to the fact that seeds have been saved for several years from the plants, no effort having been made to secure only double flowers. It is worth recording that there are sufficient self-sown seedlings at the present time in the position illustrated to provide a display of Godetias this year. A. O.

SWEET PEAS FROM CUTTINGS AND AS STANDARDS.

HAVING heard that Sweet Peas may be easily propagated from cuttings, I made the trial last year, and although I was successful in rooting the pieces put in, they did not become good flowering plants. As, however, Sweet Peas did not do well with me last year except with autumn-sown plants, which flowered well for a brief period.

on account of the bad season, was only partly successful, was to grow the Sweet Pea as a standard plant. I see no reason why any plant which is of a tall-growing habit and makes free growth should not be capable of being (shall I say?) standardised. I have it in my mind in a modest way to emulate the beauty of a weeping Rose by the use of the Sweet Pea. I selected some strong-growing plants of *Hercules* and forwarded them in 6-inch pots in the greenhouse, picking out all the side growths until they were 4 feet high, when they were planted out. They certainly made a head, but not sufficiently to train them loosely over a framework, as I had intended. Here, also, I shall endeavour to try again, and I invite other readers to do likewise. But instead of confining myself to one plant, I shall grow two and train the growths up together, as I have successfully done with *Heliotropes*. A clear stem of 4 feet to 5 feet will be as high as I shall take the plants until I am assured of the success of the venture.

WILLIAM F. ROWLES.

SOME HINTS ON POTATOES.

THE Potato crop is one of the most important, whether grown in garden, allotment or field. Many cultivators simply dig up the soil, which has been left undug all the winter, and then put in the sets without any manure or other preparation. Others go to the opposite extreme, trenching in the autumn, forking up the soil in the spring or late winter, applying manure in the autumn and again at planting-time, thus making the soil too rich. The aim should be to obtain a strong, healthy haulm, but not too luxuriant.

The Treatment of the Tubers.—Many cultivators select the seed tubers from the general store, and very often they possess sprouts 6 inches long. This means a loss of strength. Tubers so much weakened cannot produce crops equal to those boxed early and possessing one or two short, sturdy sprouts—the first that has grown from the tuber. Much can be done to improve the sets during the few weeks prior to planting. It is not necessary to box them all if this is inconvenient, but all the early kidney varieties should be placed on end in single layers in a cool, dry, light shed or store. The maincrop tubers will benefit if spread out thinly in a similar place; but if several tubers in depth, they must be gently turned over once every week. Many bushels can be thus dealt with in a short time. I remember being shown over the seed stores of the late Mr. James Clark, the raiser of the well-known Magnum Bonum Potato, and it was an object-lesson of great value. He gave keen attention to the smallest details, and cool storage in thin layers was one; abundance of air and light another. He obtained wonderfully good crops as a result, but never owing to excessive manuring. While chatting with him, he remarked that yellow-fleshed Potatoes were generally the best flavoured, but owing to their colour many persons objected to having them on their tables. If we can get heavy crops of sound, yellow-fleshed tubers, I think it would be folly to object to the colour.

Planting and Interplanting.—Many maincrop varieties could with advantage be planted earlier than they often are, and in light soils a little deeper, too. Cultivators who possess small gardens, and others who have fairly large ones, make a practice of planting Cabbages or other plants of the Brassica family between the rows of Potatoes, thinking to make use of the ground to the very best advantage; but do they? I think not. Judging from experience, I have noticed that the Potatoes have suffered considerably. Cabbages, &c., absorb much moisture and nutriment from the soil in a short time, and the loss in the Potato crop is not compensated for by those plants. The wisest course is to allow the Potatoes to have possession till they are harvested. Following the early varieties, Cauliflowers, Savoys and winter greens may be the rule. After late Potatoes a crop of Turnips may be secured, and the general result will be more satisfactory.

Newly Broken Ground.—Probably owing to the lead given by the Editor in his admirable article, hundreds of cultivators will break up grass land and land that has been untilled practically for a number of years. Now, in such cases no other crop can surpass that of Potatoes as a first-crop. Cabbages, &c., would not make such progress as Potatoes would. Furthermore, the cultivator, in paying the necessary attention to the Potatoes, will be enabled to thoroughly clean, it may be, much land that is now in a bad state and infested with weeds. SHAMROCK.

A GOOD NEW MAINCROP POTATO.

The accompanying illustration represents a crop of what I consider to be one of the best maincrop Potatoes of recent introduction. It was sent out a year or two ago by Messrs. E. Webb and Sons



A GOOD CROP OF POTATO PROSPERITY, A NEW MAINCROP VARIETY OF GREAT PROMISE.

of Wordsley, Stourbridge, and named Prosperity. It is a robust variety, and with me very free from disease, the tubers leaving the soil in a beautiful, clean condition. These are almost round, with partly netted skins. The flesh is very solid, and consequently the tubers weigh well. The crop illustrated consisted of just over two and a-half bushels, and was the result of planting 14lb. of seed tubers. No doubt the crop would have been considerably more, but owing to the fact that I did not know it made such robust haulm, the sets were planted too closely together. It is a Potato that ought to have at least 3 feet between the rows and 18 inches between the plants in the row. The tubers have kept well, and now, early in March, cook nice and floury and keep an excellent colour, H.

NOTES ON VEGETABLES FROM SEED.

THE month of March is probably the most important of all periods to the kitchen gardener who relies on the bulk of his crops from seed. With the prospect of dear food, it behoves all to obtain the heaviest crops of vegetables possible, aiming rather at quantity than quality. My advice, then, is to generally arrange the rows closer, but not to sow the seed thicker in the rows, as nothing but harm results from the latter practice, which is all too common. So many persons seem to forget that the haulm of Peas, the leaves of Turnips and the tops of Carrots require room for development and maturity, which, under certain wrong methods of culture, they do not obtain, and thus we see so many moderate results.

Onions, usually sown in rows 14 inches apart, will succeed if sown an inch or two nearer. It is important that the surface soil should be fairly dry at sowing-time, or it is liable to knead and afterwards crack on the surface. In heavy soil Onions succeed admirably with a thorough preparation—deep digging or trenching in the autumn. Previous to sowing, give the surface a thick covering of wood-ashes, soot, old potting soil and roadside refuse. This, if lightly forked in not more than 6 inches deep, will form a capital rooting medium and greatly help to ward off mildew attacks, which, in a wet season, are occasionally troublesome. The large-growing types of Onion, like Ailsa Craig, are not so desirable for sowing in the open. What is most required is a variety that will give a heavy crop without much thinning, the bulbs of which will keep until Onions are ready the following year—varieties like Ar, Brown Globe, Bedfordshire Champion, James' Long Keeping, Southampton Champion and Nuneham Park. If a pickling variety is required, Small Paris Silver Skin or Improved Queen should be selected, sowing the seeds in rows 10 inches apart, not thinning the plants at all.

Carrots for the main crop should be sown at the end of March, or even a week later if the soil is not then in a suitable condition. Large-growing varieties, like New Red Intermediate or Long Red Surrey, make more foliage than some others, and should, therefore, be sown in drills 14 inches apart; Favourite, Scarlet Intermediate and Prizewinner, in drills 1 foot apart. Nantes, Early Gem, Model, Market Favourite and New Wonderful, all desirable, short-growing types, will succeed in drills 10 inches apart. Previous to sowing, and also at the time, a free use of wood-ashes and soot may prove most beneficial later on in warding off attacks of grubs, which in some soils play havoc with the Carrot crop.

Parsnips should be sown without delay in drills 14 inches apart. Hollow Crown, Student, Tender and True, and Elcombe's Improved are all desirable.

Peas may be sown now, choosing principally second-early and maincrop varieties. Of all vegetables, none is more hindered in cultivation by thick sowing of the seed than Peas. Too often double the quantity is used that is really necessary.

If the Peas were arranged 3 inches apart in the rows, instead of sowing nine seeds in the same space, the result would be different. The haulm would thicken naturally and the leaves would develop properly, giving longer and better-filled pods of finer Peas, possessing much more flavour. Not only do Peas require more space in the rows, but they need a corresponding amount between the rows. Instead of sowing the rows within 4 feet of each other, it is much better to allow double the space and, between, grow Potatoes, Turnips, Broad Beans, Cauliflowers, Spinach and other crops; and always, where possible, arrange the rows to run north and south, so that both sides of the row obtain an equal amount of sunlight. Among some hundreds of sorts it is difficult to satisfy all in making a selection. No one can err in sowing the following: Edwin Beckett (4 feet), perhaps the finest-flavoured Pea in cultivation; Duke of Albany (5 feet), too well known to need description—this Pea has probably held its high reputation longer than any other variety; and The Pilot (3 feet), quite one of the best of second earlies. Giant Delicatessé (4 feet) is another that deserves attention, being a heavy cropper of large Peas; Harvestman (5 feet) belongs to the same section. Maincrop varieties to sow now are Peerless (3 feet), robust in habit, heavy cropper of large Peas; Maincrop (3 feet), robust haulm, bearing an abundance of huge pods of large Peas; Quite Content (6 feet) is perhaps the largest-podded Pea in cultivation; Stourbridge Marrow (5 feet) produces huge pods, well filled with extra large Peas; and Veitch's Perfection (3 feet), which still ranks high for fine flavour.

Broccoli, Cauliflowers, Savoys, Kale and Brussels Sprouts should be sown at the end of the month in drills an inch or so deep which have been previously watered should the weather be dry at the time of sowing, which ensures quick germination much better than watering after sowing. The sowing of such seeds in drills 1 foot apart is better than in beds, as the soil between the drills can be frequently stirred, which aids growth very much, especially if fly is troublesome when the plants appear through the surface. Among many varieties the following will be suitable for general use—Broccoli: Michaelmas White, Walcheren, Winter Mammoth, Christmas White, Leamington, Knight's Protecting, Late Queen and Model, with the purple and white sprouting forms which are useful late in spring. Brussels Sprouts: Matchless for the main crop, and Scrymger's Giant for those who prefer quite small button-like Sprouts for their high flavour. Of Borecole or Kale, Ar and Favourite with Cottagers' Kale are reliable sorts. Of Savoys, Early Ulm and Drumhead are desirable for late use. Early Savoys in, say, October are really not much in demand. Cauliflowers Magnum Bonum, Early Giant and Veitch's Autumn Giant are sufficient for all ordinary purposes. Early

autumn Cabbages or Coleworts sometimes come in useful in September. Sow a pinch of seed in gentle heat about the middle of the month, prick out the seedlings in boxes, harden off, and plant in rows 15 inches apart. The Rosette Colewort is a useful sort.

Celery.—Aldenhams Pink and Solid White may be sown about the middle of the month in gentle heat to give early heads in September and October. Directly the plants appear above the soil, gradually harden them off, and keep near the glass to induce a stocky growth.

Couve Tronchuda or Portugal Cabbage is appreciated by some. Sow a pinch of seed about the middle of March on a warm border, and put out the plants later in rows 2 feet apart.

desirable; while the Cos section is well represented by Nonsuch, Superb White, and Mammoth White.

Radishes are much appreciated, and it is surprising what a quantity can be grown in a small space and without interfering with other crops, or even occupying separate ground, if, when sowing seeds of crops like Onions, &c., a little Radish seed is scattered with these. Sow little and often. Of all varieties, none is more popular than French Breakfast.

Spinach.—Long-standing Round and Victoria should be sown at intervals of three weeks, to maintain a choice supply of leaves.

Tomatoes for the open walls should be sown at once, to ensure the plants being strong and

sturdy by the end of May. Too often the plants are only 3 inches high when put out. In this case three parts of the summer is over before growth is sufficiently advanced to ensure a full crop of fruit; whereas, if the plants are at least 1 foot high and sturdily grown, they will quickly lay a foundation for fruit. Sow in gentle heat, pot off when large enough to handle, and grow on in a cool house close to the glass. Sunrise and Up-to-Date are good sorts.

Turnips should be sown often and in small quantities. Early Snowball, White and Red Milan, with All the Year Round are sufficient to provide all that is required in any garden.

E. MOLYNEUX.

Swanmore Park, Bishop's Waltham



THE NEW BRASSO-CATTLEYA SHOWN BY MR. F. M. OGILVIE, AT VINCENT SQUARE LAST WEEK.

NEW AND RARE PLANTS.

FIRST-CLASS CERTIFICATE.

Brasso - Cattleya Schröderæ Shrubbery Variety (Brassavola digbyana × Cattleya Schröderæ alba).—The sepals and petals of this handsome hybrid novelty are pure white, narrow and of considerable length. The heavily fringed lip is suffused with delicate pink, particularly near the sides, the yellow-stained throat throwing all into good effect. From F. M. Ogilvie, Esq., The Shrubbery, Oxford.

AWARDS OF MERIT.

Cattleya Olympus (Cattleya Octave Doin × C. Warscewiczii).—In this the sepals and petals are of rosy pink hue, the purplish lip somewhat heavily fringed with markings of yellow on either

side. From Messrs. Flory and Black, Slough.

Shortia uniflora grandiflora rosea.—The varietal names are fairly descriptive of what is undoubtedly the richest-coloured form of this species we have seen, the warmth of the rose, as well as its depth, surpassing anything hitherto seen in this singularly small genus. The newcomer is at once a beautiful and choice plant, destined to rank high among first-class alpinists. We hope it will be forthcoming in plenty. From Mr. Amos Perry, Enfield.

The foregoing were shown before the Royal Horticultural Society on the 2nd inst., when the awards were made.

Cucumbers for frames should be induced to grow sturdily by sowing the seeds singly in small pots in a brisk heat at the end of the month, transferring the plants to larger pots, so as to have them quite large, yet vigorous, at planting-time. Telegraph is still one of the most reliable varieties to grow.

Lettuce, both Cos and Cabbage, should be sown at intervals of a fortnight in drills 1 foot apart; then, should the weather be unfavourable for planting out, the plants can be thinned, leaving them a few inches apart, when they will quickly be ready for use. This plan is a great saving of time. Of Cabbage varieties, Earliest of All, Golden Ball and Favourite are

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Watering Fruit Tree Borders.—No hard-and-fast rule need be laid down as to watering fruit borders inside. Indeed, it is very dangerous to do so, especially when the borders are unusually deep. First ascertain if they are really in need of it; then give them a thorough soaking. Vines or Peaches which have just been started into growth should not require any water till growth is active. At this period lukewarm water must be given.

Peaches.—The final thinning of the fruits in the early house should not be delayed when stoning is finished. One fruit to a square foot of space is generally considered a fair crop to leave on trees which are in good fruit-bearing condition. All surplus growth must be removed so that the fruits have plenty of light, and also that the remaining growth has ample room to develop. One shoot at the point and one at the base of the fruiting wood will be found enough to furnish the trees with young wood. During the final swelling of the fruits plenty of stimulants must be afforded, and if not already done, the roots should be mulched with farmyard manure.

Plants Under Glass.

Carnations.—The plants which were propagated in December should now be sufficiently well rooted to be repotted into $4\frac{1}{2}$ -inch pots. Pot fairly firm and use a compost of loam, naturally decayed leaf-mould and coarse sand. Place them near to the glass and keep rather close for a few days, syringing them twice daily with rain-water during bright weather. Pot on cuttings as soon as they are rooted, but they must not be exposed to the sun or cold draughts till they have recovered from the shift. A few of the most forward of the Malmaisons may be placed in a warm house if a few early flowers are desired, but the main batch must be kept as cool as possible.

Cinerarias.—These will now have their pots well filled with roots, and must be frequently examined to see if they need water. Stimulants must be frequently given to assist the flower-buds which are now expanding. If the leaf maggot is present on the leaves, they must be picked off, or they will badly disfigure the plants.

Calanthe Veitchii.—The soil should be prepared for potting these, so that it may be in good condition when the pseudo-bulbs begin to emit roots. I find the plants thrive splendidly in a compost of fibrous loam, naturally decayed leaf-mould, dried cow-manure and coarse sand.

Euphorbia jacquiniæflora.—Plants which have been resting may now be placed in a warm, moist house to produce cuttings for propagation. They will require little water till growth is active, but they must be syringed frequently.

The Flower Garden.

Lawns.—The mowing-machines must be got ready for use, for it will soon be necessary to run them over the lawns. The lawns should, however, be well brushed with a Birch broom and rolled before using the mowing-machine. When the grass is poor, an effort must be made to improve it, either by dressing it with a mixture of fine soil and manure, or by using a special lawn manure supplied by the trade. The ground for new lawns should have its final preparation by making good any irregularities on the surface. The first favourable opportunity ought to be taken to sow the seed. The work of trimming the edges of lawns and grass verges should be brought to a close at once.

Edgings of Box.—Edgings of Box may be made now, either by cuttings or by young plants from the nursery. If cuttings are used, care should be taken to obtain them from trees of good habit and colour. Gaps in Box edges may be made good in the same manner.

Shrubberies.—The pruning of trees and shrubs should be brought to a close as soon as possible, so that the vacant ground in the shrubberies may be cleaned and dug. Trees which are supported with stakes must be examined, and the ties and stakes made good where necessary.

The Rock Garden.—Interest in this part of the garden will increase now that the growth of the plants is developing. Many bulbs and other

subjects are showing their flower-buds, and a careful watch must be kept for mice and slugs, or disappointments will be great. Any planting of hardy subjects not yet done should be no longer delayed.

The Hardy Fruit Garden.

Nuts.—These may now be pruned. Little need be done in the case of old established trees beyond a judicious thinning of the branches and the removal of suckers from the base. Younger trees must be carefully pruned, so that shapely, well-balanced trees may be grown. A point which needs emphasis is to have the centres of the trees open.

Figs.—The present is a suitable time for planting Fig trees outdoors. A warm, sheltered position must be chosen, such as a wall facing south or west, and a restricted rooting area is essential. In preparing the compost for the border, a good proportion of old brick rubble is necessary. Make sure also that the border is efficiently drained with broken bricks.

The Kitchen Garden.

Onions.—The plants that were raised in boxes for planting out will need pricking out into other boxes, in order to have strong plants by planting-time. Keep them rather close for a few days to encourage fresh roots; then gradually inure them to cooler conditions.

Leeks.—The earliest-sown plants may be treated as advised for Onions. A sowing may now be made outdoors for the main plantation.

Beet.—A small sowing of the Turnip-rooted kind may be made on a warm, sheltered border as soon as the soil is in suitable condition.

French Beans.—Make fresh sowings of these every ten days or a fortnight. Plants coming into bearing must be liberally fed with manures, and sprayed two or three times daily to keep them clean. A sowing may be made now in a cold frame.

Plants in Frames.

Cauliflowers and other plants which are being grown in cold frames for putting out in the open next month must not be coddled. During favourable weather the lights should be removed altogether. Pay particular attention to watering.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

Fruit Under Glass.

Strawberries.—The later batches of Strawberries, after fruiting, should have any runners removed and be placed in cold frames. If red spider is at all evident, the syringe must be used freely. As the pots are likely to be required for other plants, it is an advantage to plant out as soon as the plants have become hardened to the cooler conditions. If the season is a good one, a second crop is very likely to be gathered during September or October from plants treated in this way.

Ventilation.—Exercise caution in admitting air to fruit houses at this season, especially if the top ventilators should be unfortunately facing the north, as is sometimes the case in the older structures. Close the ventilators fairly early in the afternoon, so as to retain as much sun-heat as possible.

The Hardy Fruit Garden.

Protecting Fruit Blossom.—Plums and Pears are very liable to be injured by frost and cold winds. Any extra work in arranging for their protection is usually well repaid by a better crop of fruit. Trees growing on walls are much more easy to protect than those growing in the open, for obvious reasons. Branches of evergreens, such as Yew or Spruce, are splendid for this work, as they can usually be made to remain on the spurs of the trees without much tying. Too dense a covering of any protecting material, however, is not to be recommended, as the blossom must be left exposed in such a way that it will receive the full benefit of the sun. If tiffany or any such covering is used, it will be necessary to remove it daily, and, whenever possible, keep it dry, as a dry covering will keep out much more frost than a wet one.

Plants Under Glass.

Salvia splendens.—If plants have not already been propagated, some cuttings should be got in and rooted in heat. If standards are desired, plants raised from seed will be found to make good long stems quicker than those from cuttings. The leading growth must be supported by a stake and disbudded until the desired height has been reached. Being a vigorous grower, *Salvia splendens* benefits from frequent applications of liquid manure.

Deciduous Calanthes.—With the exception of the very late varieties, such as *Regnieri* or *Sanderi*, all the *Calanthes* are sufficiently advanced to repot. When removing the old bulbs and soil, see that enough roots are left to secure the bulbs in the new compost. A good mixture in which to grow *Calanthes* consists of new leaf-soil, chopped *Osmunda* fibre, dried cow-manure, good fibrous loam, a little sphagnum moss, and a fair quantity of coarse silver sand.

Tuberous Begonias.—For a general summer and autumn display indoors, the tubers should now be started in gentle heat. Place them among leaf-soil in shallow boxes, in which they root very freely. Potting up can be carefully done after they are nicely started. Propagation of most varieties may be done by division of the tubers as soon as the small growths can be discerned.

Begonia Gloire de Lorraine.—This plant is now almost indispensable in every garden, being so useful for general decorative work. To have plants in various sizes, the propagation must be periodical; for instance, small plants suitable for table decoration should not be propagated until the middle of May. As plants become ready for potting, see that the soil is light, and do not pot at all firmly. Fumigate frequently to keep in check the various pests that these plants are subject to.

Campanula pyramidalis.—Both blue and white forms make handsome flowering plants for a display in July and August. Sow seed in heat to produce plants which will flower in 1916. Established plants may now receive some help from liquid manure as they commence to throw up their flowering stems.

The Kitchen Garden.

Rhubarb.—It is possible to have a good supply of Rhubarb quite three weeks in advance of the main crop, even without lifting the roots. To obtain this, any barrels or large boxes which have had the bottoms removed may be used. Place these over the crowns and surround them with some fresh stable litter mixed with a few leaves.

Peas.—More sowings must be made as the ground becomes ready. If possible, sow on ground which has been well manured the previous year; that which has been occupied by Celery will suit them well. Peas also do admirably on any new land, provided it is first well trenched.

Celery.—The main crop should now be sown in heat. Sow in boxes, and make certain that the plants never suffer from want of water, otherwise they are liable to run to seed later in the season.

The Flower Garden.

Pyrethrum aureum.—The sowing of this plant for bedding purposes should not be delayed after this date, as it requires a fairly long time to grow. Seed should be sown in boxes and put in gentle heat.

Mignonette.—To have this fragrant flower early, sow now in boxes, so as to have good-sized plants ready to put out in May, and which will commence flowering in June.

Pentstemons in frames, which have not been potted up, may be lifted carefully and dealt with in much the same manner as advised for *Violas*. Not being quite so hardy as *Violas*, they need more protection until they recover from the check caused by removal.

Calliopsis or Coreopsis.—The annual varieties are most graceful in whichever way they may be used for bedding. Sown outdoors, they do not flower until the season is far advanced; therefore, to get early flowers and better plants, seeds should now be sown indoors in boxes. Apart from being useful as bedding subjects, the flowers of most of the *Coreopsis*es are invaluable for cutting purposes.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

ROSE-GROWING IN TOWN GARDENS.

(Continued from page 113.)

Potash helps considerably in the formation of all plants. Its presence in the soil is essential to growth, for it combines with other elements in enabling the roots to assimilate food, and, as it were, promotes digestion. It also plays a considerable part in ripening the growths. Sulphate of potash is the most concentrated form generally used. Kainit is an impure form of the same salt (about one quarter the strength), and those who find difficulty in obtaining it should have recourse to wood-ashes, which form the best and cheapest substitute; or they can use nitrate of potash with caution.

Phosphates are chiefly instrumental in assisting in the production of fruit and flowers, and also aid in the formation of hard wood. It will be understood, therefore, that their presence in some form is indispensable to the Rose-grower. When forming the beds, bones are applied, and these form a lasting and slow-acting source of supply. Subsequent dressings of bone-meal in the autumn are very beneficial. In chalky soils dissolved bones should be given, as the presence of the lime retards decay very considerably. Guano, if of good quality, is particularly rich in phosphates, and is in itself a capital all-round manure, for it contains nitrate and potash in addition. It should be applied in the spring, about two ounces being given to the square yard. Superphosphate of lime contains a high percentage, and is perhaps the best form of adding phosphate in combination with other artificial manures. Basic slag is slow in action, and though sometimes advocated as an autumn dressing, other forms are preferable for Roses. It must not be mixed with sulphate of ammonia.

Lime, as is generally known, sweetens and improves the soil. It assists chemically in making other food available for the roots, besides forming in itself a part of the plants' nourishment. It helps also to retain nitrogen (ammonia) in the soil. Slaked lime should be added to heavy soils, pulverised chalk to lighter ones, when making up the beds. Sulphate of lime, otherwise gypsum, or plaster of Paris is the best means of adding it in conjunction with other fertilisers. Used with kainit, this has the effect of releasing the potash and making it available for the roots more quickly.

Iron assists in forming chlorophyll, the green colouring matter in the leaves, and its presence also intensifies the colour of the blooms. In many soils a sufficiency is present, but if it is desired to add it, sulphate of iron should be given.

Magnesia.—Roses contain a larger proportion of this than most plants, and its addition in the form of sulphate of magnesia, or Epsom salts, is generally advocated. Its main function is to assist in the formation of the protoplasm (the live part of the cells) and in the creation of fresh growths.

Perhaps the best formula for an all-round fertiliser for Roses is that known as Tonk's Manure, which is given below. Apply now at the rate of a handful to the square yard.

	Lb.
Superphosphate of lime	12
Kainit	10
Sulphate of magnesia	2
" " iron	1
" " lime	8
	33

It will be noticed that no nitrates are included, but if the foregoing is given now and, say, sulphate of ammonia is added in May, this will have the best effect. P. L. GODDARD.

ANNUALS AT READING AND SLOUGH.

FOR many years now we have had the privilege and pleasure during the summer months of inspecting that remarkable set of annual flower trials with which Messrs. Sutton and Sons make gay some fifty or sixty acres of their seed trial grounds near Reading, though never before do we remember wandering amid such a feast of colour—such flower pageantry, with all the colours of the rainbow in sumptuous array—as was witnessed on the occasion of a visit on July 31 last. And what is it all for? What does it all mean? Naturally, to take the last first, it means an enormous outlay of time and money, represented by the thousands of annuals that here find place, every one of which is labelled, booked in duplicate if not beyond, inspected over and over again during the season by the firm's own staff; these are among the items which go to make so gigantic and complete a trial. A "trial" as understood by Messrs. Sutton is an exhaustive as well as comparative test—a somewhat costly undertaking.

But what is it all for? Well, if we are to believe what we hear of the people we meet in the train, it is intended to be a flower show, though that is a low estimate indeed of the fact. That there is a flower show none will deny, but it is here as a consequence of the trials, and not for purposes of display alone. The one great object of this array of flower wealth is, as already hinted, a comparative test, and from out of it year by year Messrs. Sutton are enabled not only to select the most promising strains, but, while adding to the rich store of knowledge they already possess, impart this to their patrons and friends through the valuable medium of high-class seeds. Here, then, in nutshell form are the primary reasons for these wondrous displays, and if from the spectacular standpoint they are in the nature of a gigantic flower show, demonstrating high excellence in the flower garden and how it is obtainable at comparatively small cost, they are also intended for a much higher purpose of which the ordinary observer knows but little.

As to the display itself, or the items which go to make it, our remarks must of necessity be brief, since a volume as sumptuous as the display might well be written concerning it. To those interested in extensive ribbon borders of annual flowers we might at the outset refer to the borders at either side of the main drive at Reading, alike in view from the London Road and from the Great Western Railway. These borders are some two hundred yards or so in length, and their make up should interest gardeners, park superintendents and others who have to undertake such work. The borders are treated in five lines, and in this instance probably display was a first consideration. The first line at the margin was of *Alyssum maritimum*, a very good strain; the second, *Nasturtium The King*, of very intense colour; the third, *Godetia Dwarf White*; the fourth, *Godetia Scarlet Queen*; and the fifth, *Godetia Marchioness of Salisbury*. In this way fine colour

contrast, graduated height from front to back, and profuse flowering were all assured. In another direction a remarkable mosaic, created by the planting of the firm's special mixture of Dwarf Tom Thumb *Nasturtium*, attracted notice, so uniformly blended that almost every plant might have been put in its allotted place. As it was, the seeds were sown in the open, a fine tribute to the infinite care exercised in blending certain mixed strains of flower seeds. We have more than once been impressed by the beauty and truthfulness to colour of the Snapdragons, and we refer again to them because of their simple cultural requirements, their amenability to many classes of soils and their responsiveness to the gardener's art. Rich and pale apricot, Fire King, Orange King, Coral Pink, Rosy Queen, yellow of varying shades, bright and deep crimson—these are a few of the many that appear in each of the three sections—dwarf, medium and tall—of this unique, free-flowering race of hardy plants. Some of the more brilliant colour effects were created by the Malopes and Lavateras, and whether as hedges, lines or massed battalions, these plants made themselves conspicuous both by flower beauty and informality. *Lavatera Loveliness*, to name but one, was laden with its rich deep rose-coloured flowers on stems 3 feet high. It is a remarkable plant. *Calendrinias* and *Dimorphotiecas*, all sun-lovers, were finely represented, making gay pictures withal, the latter now seen in a variety of hybrid mixtures as well as in the handsome orange colour of the best-known species. A remarkable plant here among 3-feet-high growing subjects is *Datura ceratocaulon*, also known as Angels' Trumpet Flower. It has huge trumpet-shaped, white, shaded pink, exquisitely fragrant flowers, which are both picturesque and handsome. These, naturally, are but a fragment of the acres we saw at Reading.

At the Slough grounds we also found much to interest and instruct, and much food for thought. Sweet Pea flowers were in a decline; a very satisfactory crop of seeds—a heavy one indeed—in the ascendancy. Hollyhocks from February-sown seed were at the time of our visit (July 31) just beginning to show flower, a fine lot of plants that will prove invaluable for late work. We have rarely seen so healthy a batch, and, remembering the dryness of the early part of the year, progress had been remarkable. In the Slough soil, however, there is something for a plant to revel in, and obviously these Hollyhocks had discovered it. Quite one of the outstanding features here, however, was an acre or two of the new developments in annual Sunflowers, to which Messrs. Sutton are giving marked attention. Collectively they are a surprising lot, full of promise as a new race of garden plants of high merit, a veritable surprise packet to all who have yet to try them. The original cross (*Helianthus lenticulatus* var. *coronatus* × *H. annuus*), made by Professor Cockerell of the Colorado University, produced Sutton's Red Sunflower, a remarkably handsome variety of velvet brown, tipped golden yellow. Sutton's Bronze King, not yet absolutely fixed, is nearly self-coloured; it is almost wholly of brownish velvet hue. It is a selection from that first named, and quite unique. Langley Gem, Langley King, Langley Pearl, Langley Diamond (a cross between Sutton's Red and *H. cucumerifolius* Stella) and Langley Beauty, all distinct, serve to show the progress of the race at the moment. The plants, 5 feet or more high, are like a small edition of the annual Sunflower

(*H. annuus*) minus its greater coarseness, the flower-heads some 6 inches or 7 inches across. They are garden plants, however, and must be seen there; we cannot do them justice on paper. For the rest we were confronted by acres of Stocks, Asters, Lupines, Clarkias, Eschscholtzias revelling in the sunlight, Canterbury Bells, Iceland and allied Poppies (among which chaste and pretty art colours are now appearing), Marigold (*Calendula*) Orange King, and Cosmeas, than which none are more graceful and elegant, all giving of their splendour and, while affording pictures of varying and contrasting brilliancy to the landscape around, demonstrating their simple cultural needs by their responsiveness to field culture and the perfection to which they attain.

E. H. JENKINS.

BOOKS.

Gardening for Beginners.*—It has been frequently asserted that the publication of works on gardening has been too rapid for assimilation, and that a reduction in the output might with advantage be adopted. That this is not the case with books of a certain standard is, however, effectively proved by the publication of a sixth edition of the popular "Gardening for Beginners," written originally by Mr. E. T. Cook, and first published in 1901. It speaks much for the plan and execution of this book that it should have held the field for so many years, and that the publishers have found it necessary to re-issue it from time to time.

The sixth edition has been greatly revised and extended, and Mr. F. W. Harvey, to whom this has been entrusted, has carried out this troublesome task with rare ability and discretion. "Gardening for Beginners" retains all its first value, with the addition of many features which constitute it more than ever a *vade mecum* for the class for whose benefit it is written—a class difficult to provide for, inasmuch as the experienced gardener is apt to take for granted that the reader has much more knowledge of the subject than he really has. The result is that he too frequently writes above the level of the reader he hopes to assist, and the latter suffers accordingly. In this work, however, Mr. Cook struck an appropriate note, and in the process of revision and addition Mr. Harvey has acted in thorough accordance with the plan. This does not, of course, imply that "Gardening for Beginners" is only of use to the mere tyro in horticulture. It caters for him, but it also supplies much material of high value for those who are several stages more advanced, and, indeed, for many who have spent their whole lives in constant touch with horticulture and have practised it for many years.

In the sixth edition a very considerable improvement has been effected by the addition of some new chapters embodying instructions regarding several of the gardening features which have come into prominence since the earlier editions appeared. These have been admirably written, and the beginner will find in the book practically all he may require to ease his path in the formation and maintenance of his garden for many years.

* "Gardening for Beginners: A Handbook to the Garden," by E. T. Cook, sixth edition, fully revised, with additional chapters by F. W. Harvey. One volume, pages x.—350, including index, with many full-page and other illustrations and coloured plates. London: Published at the Offices of *Country Life*, 20, Tavistock Street, Covent Garden, W.C.; and by George Newnes, Limited, 8—11, Southampton Street, Strand, W.C. New York: Charles Scribner's Sons. Price 12s. 6d. net.

A careful perusal of these new chapters, which comprise such subjects as "The Heath Garden," "The Wall Garden," "The Paved Garden," "The Bog Garden and Its Formation," "Replanting or Renovating Borders," &c., reveals sound teaching conveyed in a manner which cannot be misunderstood, and rendering these pages of exceptional value.

The searcher after a manual of gardening is apt to suppose that he must purchase several books in order to cover the various branches of horticulture, and that he cannot well obtain one of moderate size, and at a moderate price, which will give him the instruction he desires on flowers, fruit and vegetables alike together with information regarding soils, manures, pests and other questions which crop up from time to time in the course of the garden year. Not only are these discussed—and that fully—but the greenhouse and conservatory, Ferns, the cold greenhouse and other features receive pithy, yet adequate treatment. It is, indeed, difficult within the limits of a review to select for notice any special feature, seeing that the whole field of horticulture as it appears to the beginner is well covered. Even the town gardener, who has difficulties all his own, in the dozen or more pages specially allotted to him in this handsome book of 650 pages will find a capital *résumé* of the subject and a stimulus to his attempts to make his *rus in urbe* a little pleasaunce amid bricks and mortar, as so many have done.

The general scope of "Gardening for Beginners" is a wide one, as may be gathered from the headings of a few of the chapters in each of the three parts in the volume. The first deals mainly with the flower garden in its various phases, and gives capital descriptions of different groups of hardy flowers, such as the Anemone, Pyrethrum, Delphinium, &c. The mixed border, with its treatment, is then discussed, and is followed by chapters on "Hardy Flowers from Seed," "Annuals," "Spring and Summer Bedding," "Sweet Peas," "Bulbous Flowers," &c. "The Rock and Water Garden" is fully considered, and "Good Trees and Shrubs," "Lawns," "Climbing Plants" and other subjects find full scope. Part II. deals mainly with glass structures and their inmates, and a good word may be spoken for the chapter on "Orchids for Beginners." The Chrysanthemum is also discussed, and even the curious Cacti find their place. Part III., which includes, *inter alia*, the cultivation of vegetables and fruit, written in a practical and concise manner, embraces a variety of other useful chapters too numerous to detail, but it may be said that it includes one of the many intensely valuable features of the book—a selection of plants, embodied in useful tables and lists, full of information. A study of these shows that they are well up to date, and they should prove of inestimable value to the busy gardener, whether he be professional or amateur.

In addition to the many improvements and additions in the letterpress in this edition, its attractions and value have been much enhanced by the addition of a large number of new illustrations in black and white, and also by some coloured plates, which not only brighten up the volume, but are also excellent examples of modern colour-printing. The whole "get-up" of the book is capital, and the price for a work of its size and quality is very small. It may confidently be commended to the amateur who desires to make the best of his garden.—S. ARNOTT.

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. At reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artists' or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

Offices: 20, Tavistock Street, Covent Garden, W.C.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

ORIENTAL POPPY DISEASED (*Papaver*).—It is scarcely safe for us to recommend treatment of a diseased plant without having an opportunity of inspecting it. We suspect your *Papaver* was attacked either by a bug which pierces the stem somewhat in the fashion of a cuckoo spit insect, or by the larva of a fly. We should, however, be glad if you would send us a specimen if the trouble should recur. In any case, the removal of all parts that are left above the ground would be a wise measure.

TREES AND SHRUBS.

SHRUB FOR NAMING (*Emile Thibault*).—The specimen sent for identification is the common Bay (*Laurus nobilis*). The seeds are quite typical, and the variation in size and shape is not uncommon in the species. The outer coat of the fruit has either rotted away or been eaten by birds.

ROSE GARDEN.

MOVING ROSES IN APRIL (*Miss G. Leney*).—Yes; you can safely transplant as late as April the Roses you planted in the autumn, and they will do all right, although they will bloom a little later. If possible, have the plants dug up now and heeled in on the north side of a wall or fence. Prune hard back at the time of replanting or immediately afterwards, and if the weather happens to be dry at the time, water them in and also apply water every five or six days for two or three weeks. When replanting, dip their roots in some thin mud and apply a shovelful of nice compost rather on the dry side. After the Roses have been planted a week, go over them and make the soil firm about their roots by pressing your heel on both sides of the plants.

ROSES FOR EAST WALL (*M. S. W.*).—Roses succeed extremely well against an east wall, and many lovely kinds may be grown there. We have Irish Elegance against such a wall, the plant being now some 6 feet to 7 feet high. You do not mention the height of your wall. If lofty, you would require rather strong growers. Perhaps to plant a tall grower and a moderate grower alternately would be best. As a rule, ramblers are best grown in the open, but there are some that have glistening foliage that succeed well. We note you desire pale colours as a contrast to the Phlox border close by. Below we append a list of early and late flowering ramblers that we can recommend. We also give a list of perpetual flowering kinds that we think should predominate. Ramblers (early).—Tea Rambler, Alberic Barbier, Gardenia, Leon-tine Gervaise, Shower of Gold and Desiré Bergera. Ramblers (late).—Elise Robichon, Paul Transon, Fran O. Hesse, Tausendschön, White Tausendschön, Miss Helyett, Silver Moon and Joseph Liger. Perpetual flowering (tall growers).—Climbing K. A. Victoria, Mme. A. Carrière, Bouquet d'Or, Mme. L. Constantine, Lady Waterlow, Gloire de Dijon, Climbing Clara Watson and Claire Jacquier. Perpetual flowering (medium growers).—Alister Stella Gray, Irish Elegance, Gustave Regis, White Maman Cochet, W. R. Smith, Mrs. H. Stevens, Papillon, La Tosca, Pharos and Marie van Houtte.

THE GARDEN.

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MARCH 20, 1915.

NOTES OF THE WEEK.

Dainty Iris for the Rock Garden.—Of the most suitable Irises for the rock garden, *I. sind-jarensis* is one of the best. This charming little hybrid is derived from crossing *Iris sindjarensis* with *I. persica*, and is just now looking very pretty. It is very fertile and exceedingly floriferous, forming a close mass of blue. The foliage is intermediate between the parents, while the flowers are of a fuller form than in the female plant, but without the shaven apex of the falls that is so conspicuous in *I. persica*.

Cyclamen pseud-ibericum.—This is the finest of all the hardy members of the genus. It is of somewhat obscure origin, having been described from plants growing in the nursery of Messrs. Van Tubergen of Haarlem. Apparently a hybrid, so few seeds have matured on the plant. The leaves, like those of *C. ibericum*, are marked with a zone of white; instead of being entire, the margin is wavy, while the inner sides are of a ruddy rose colour. The rich rose coloured flowers, with the faintest tinge of purple, are produced well above the foliage, as may be seen in the illustration. The segments are about an inch long, and each has a dark purple blotch at the base. *C. pseud-ibericum* commences flowering early in February, and continues in bloom for nearly six months. It is quite as hardy as *C. ibericum* and *C. hederifolium*, but is much superior to either in the size of its flowers.

Supplies of Wood for Pits.—The Board of Agriculture and Fisheries desire to draw the attention of owners of woodlands and others to the fact that some collieries are still finding difficulty in securing adequate supplies of pit-wood. In consequence of the situation created by the European war, supplies from abroad are considerably curtailed, and it is necessary to have recourse to home-grown timber. Landowners may find this a favourable opportunity to sell, at a remunerative rate, timber of which they have hitherto found it difficult to dispose to advantage. As a rule, however, collieries are not prepared to buy standing timber unless the woods are in their immediate neighbourhood. Information as to the kinds of timber

required, marketing and other matters in this connection will be found in Special Leaflet No. 17, copies of which may be obtained post free on application to the Secretary, Board of Agriculture and Fisheries, 4, Whitehall Place, London, S.W.

The False Acacia as a Hedge Plant.—In dry, arid soil, where the common Hawthorn will not succeed as a hedge plant, and only the most miserable of stunted, moss-covered plants exist, the False Acacia (*Robinia Pseudoacacia*) should be planted, as it will be found to thrive better than many kinds in such a position, and quickly forms a strong fence.

Abbey, created a record at the Forced Bulb Show in London last week, when he secured three gold medals for Hyacinths. These were awarded respectively for a group arranged for effect, eight pans of Hyacinths, and eighteen single plants.

Help for Aged and Infirm Gardeners.—The appeal that we publish on the next page from the Gardeners' Royal Benevolent Institution deserves, and we hope will receive, the fullest consideration of every one of our readers. We have intimate knowledge of the most valuable work that this Institution has done, and is still doing, and

can, therefore, advise our readers to render it all the assistance they can. Now that our gardens are awakening from their winter sleep and becoming beautiful with spring flowers, let us remember those who have in the past done their best to give us these pleasures, and who, through no fault of their own, have fallen on evil times. A sovereign subscribed to this Institution will give as much pleasure to one of these as the Crocuses and Daffodils bring to those who love beautiful flowers.

Home-Grown Vegetables and Our Food Supply.—The deepening interest which is being shown in this matter is a source of gratification to us. Since the appearance of the article in our issue of February 6, a London daily paper is offering £1,000 in prizes for vegetables, the Royal Horticultural Society has issued a circular letter on the subject, our contemporaries have "got busy" on vegetables,

and even some of the big London stores are waxing enthusiastic on the subject. What concerns us most, however, is the fact that a great many horticultural societies throughout the country are adopting the ideas set forth in our article, and it is from these that we consider the most valuable results will accrue. As will be seen by a letter we print on the next page, the Colchester Rose and Horticultural Society, which had decided to abandon its show, intends, mainly as a result of our suggestions, to hold a special show in September next. We repeat that we shall be pleased to send reprints of the article for distribution to anyone who cares to apply for them.



CYCLAMEN PSEUD-IBERICUM, THE LARGEST FLOWERED OF ALL THE CYCLAMEN HARDY IN THIS COUNTRY.

French Horticulturists in War Time.—We think the following extract from a letter received a few days ago will be interesting: "The French people, and French horticulturists especially, are deeply indebted to their British *confrères* and brothers in arms. I think I may say that both nations were glad to know each other better, and that the feeling of sympathy which the present war could only greatly reinforce will last for ever after the coming victory.—G. GRIGNON, *Revue Horticole*, 26, Rue Jacob, Paris (6e)."

Three Gold Medals at One Show.—It would be interesting to know whether Mr. James Gibson, gardener to the Duke of Portland at Welbeck

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Undesirables in the Rock Garden.—Re paragraph on page xxx in the issue for the 6th inst. on undesirable plants in a rock garden, I had two very undesirable ones, viz., Bindweed and Coltsfoot, to master when I first came here, and they had apparently come to stay. I cut each stem level with the ground and applied one drop of nitric acid. It was a long job, as there were hundreds of plants to deal with, but I have never seen them again.—ALBERT ERNEST HALL, *Southwell, Notts.*

Roses Under Glass.—Here are seven of the newer Roses for those who are compelled to grow them under glass—all have done extremely well in a cold house in pots, and in an atmosphere frequently likened to that in an old and, alas! over-populous world: Ophelia, Carine, Mme. Jules Bouche, Lady Greenall, Melody, Mrs. Amy Hammond and Mrs. Herbert Stevens. By the by, can anyone direct me to a Pernetiana Rose of good form that will retain its colour when cut?—TOWN, *Bury, Lancashire.*

Home-Grown Vegetables and Our Food Supply.—My committee met on the 5th inst. (adjourned annual meeting) to consider the question of arrangements for 1915. After considerable discussion, and in face of a motion that "No shows be held in 1915," it was eventually decided to hold a show on Wednesday, September 8, instead of the usual summer show in July. This decision was largely owing to the advice and information given in your excellent article, "Home-grown Vegetables and Our Food Supply," which appeared in the February 6 issue, and I have been asked whether you could help us by sending me sufficient copies of your reprint of the article for me to send one to each of the members of our society—about 250. If you can do this, I am sure they would serve a most useful purpose, and, further, explain better than I can not only why we are holding a show, but how each individual member can help.—JOHN E. CHEESE (Hon. Secretary), *Colchester Rose and Horticultural Society.*

Recipe for Orange Marmalade.—In your issue of March 6 "Anne Amateur" kindly contributes what appears to be a very good recipe for Orange marmalade—no doubt tried and proved by many a housewife. But may I crave space to point out a little omission or error which might lead to most serious consequences? The writer says, after giving directions for cutting up the Oranges very thinly, "Put the Oranges into the preserving pan with the water, leave them twelve hours to soak. Then boil for an hour and a-half after it boils up," &c. It should be pointed out most distinctly that no fruit of any kind should ever be left to stand in a preserving pan for any time if the preserving pan is of copper or brass, but only when the pan happens to be an enamelled one and in perfect condition—that is, with none of the enamel chipped off. The action of fruit, acid Oranges especially, would be to draw out the poison from the vessel, and a sad catastrophe might be the result. Moreover,

as Seville Oranges are naturally bitter, the poison drawn out (which is very bitter) might not arouse suspicion in the young and inexperienced till too late. The best way, in any case, is to leave the cut-up fruit in an earthenware basin till it is time to boil it. Young and amateur cooks cannot have it impressed too strongly upon them never to leave any food in copper or brass vessels, except during the actual process of cooking, after which the utensils should at once be cleansed and dried and put away.—N. COBB.

Phloxes for Spring Planting.—I was interested to read the excellent article on the spring planting of Phloxes in THE GARDEN for March 6, page 115. Although I would prefer autumn planting wherever possible, I have had good results from planting early in March, and send you a photograph, taken at the end of July last year, of a plant of the white variety Mrs. E. H. Jenkins. This was planted early in March last year, and I think



A WELL-FLOWERED PHLOX THAT WAS PLANTED IN MARCH, 1914.

the results are sufficiently good to justify one moving it at that time. What I do find, however, is that one must have good-sized plants. The small ones sold in pots give very little in the way of flower the first year unless planted in the autumn, —A. B. ESSEX.

The Gardeners' Royal Benevolent Institution.—The committee of management of this national horticultural charity make an earnest appeal for the means necessary to maintain their 265 annuitants, 150 men and 115 widows, costing nearly £5,000 annually. This amount, which is now urgently solicited, has been hitherto to a great extent obtained from donations and subscriptions kindly given at the Anniversary Festival Dinner in aid of the funds, which has been held without intermission each year since 1843. Now, however, in consequence of the terrible war in which our country is engaged, the committee, after anxious deliberation, have decided that

it would not be in accordance with the views or wishes of their friends and subscribers to hold a festival dinner this year, and instead they have determined to issue this special appeal for necessary monetary help, with the sincere and strong hope that those supporters who have so generously and liberally contributed to the Institution in normal times will not withhold their benevolence at this critical juncture, but will do their utmost to enable the committee to continue to make provision for the poor, aged and infirm people now under their care. It may be mentioned that one of these persons, a man, is now in his ninety-eighth year, while a widow has just completed her hundredth year. It is for these and the other unfortunate horticulturists the committee most earnestly plead. Subscriptions or donations, a list of which will be announced later, will be very gratefully received by the treasurer, Sir Harry J. Veitch, F.L.S., V.M.H., 34, Redcliffe Gardens, S.W.; or by the secretary, Mr. George J. Ingram, 92, Victoria Street, Westminster, who will gladly forward further particulars of the work.

Tropæolum speciosum.—One is continually coming across people who complain that they cannot grow this lovely Tropæolum in England. They say that they, and friends of theirs, have tried it again and again, but with no success. Here (North-east Lincolnshire) it flourishes splendidly, running over Ivy, Plum trees, or on a wall, and spreading in a wonderful manner. Perhaps the history of my plants may be of use to some of your readers who want to grow it; also the experience of an old friend of mine in Suffolk. In my case I originally bought two small plants in pots, and planted them (in early spring) about two yards apart on the north wall of my house. From the house wall a high wall runs facing west. The wall of the house is not due north, but north-north-west, and on the west wall is a large Victoria Plum tree; then a door through the wall, reached from the west by a paved path; then other fruit trees, continued on the west wall. The two plants did well, and soon began to run up the Ivy. The next stage was the appearance of small growths, like suckers, to right and left of the original plants, which also gradually began to climb, even up the Plum tree. Since then its running roots have spread right under the paved path, and

great growths of Tropæolum are now running up fruit trees, appearing quite 30 feet from the nearest original plant on that side, while many growths, though not so strong, are doing fairly well in the other direction. I have taken up and given away many pieces of the root from beyond the paved path, which, as a rule, have done fairly well, but it seems to have had no effect in lessening the growth here. My friend in Suffolk had a good hedge bordering a lawn. He planted several pieces of the Tropæolum on the north side of his hedge, which grew, and in summer made his hedge a very beautiful sight. Ours is strong soil; his was very light. I believe the whole secret is that *T. speciosum* must have moisture and be protected from strong sunshine; at any rate, till late in the evening in summer. Get an established plant in a pot, plant it on a north or north-west wall, and take care that it does not (in its early stages, at any rate) suffer from want of moisture—L. C. R. N. E.

Some Green Sandwiches.—Besides Mustard and Cress, which, like the poor, are always with us, one can have just now young leaves of French Sorrel, seedling Dandelion and Lettuce, grown and cut like Mustard and Cress, and young leaves of "Jack by the Hedge," so well known to French cooks and unknown or despised in England. Its Latin name is *Alliaria officinalis*. I sow this "weed" in my hedge every year for this purpose, and also for its usefulness in stews, soups and salads later on.—ANNE AMATEUR.

Freesias from Guernsey.—After reading in THE GARDEN the very able and interesting article contributed in your issue of February 20, pages 89 and 90, by Mr. J. Duncan Pearson of Lowdham, we thought it might interest you to see a bunch of *Freesia refracta alba major* and compare same with a bunch of *Freesia refracta alba* as imported from France. We congratulate Mr. Pearson on his cultural notes, and quite agree with him as to the principal causes of failure. We ourselves grow some hundreds of thousands, and can corroborate every word in favour of early planting. There is no good reason why *Freesias* should not be all potted up by the end of July.—W. MAUGER AND SONS, Brookdale Nurseries, Guernsey. [The flowers sent under the name of *refracta alba major* were large and good, and the stems considerably longer than those of *refracta alba*. Those sent as *refracta alba* were not that variety, but the typical *refracta*. We understand this often happens with bulbs imported from France.—ED.]

The New Zealand Flax.—With regard to the soil the New Zealand Flax likes (see page 50 issue January 30), it seems to me that none of the varieties is particular. I grow *Phormium tenax purpurea* and *P. t. variegata* on a decidedly clay soil. The latter flowered and seeded last year, and though the former has not yet flowered, it is nearly seven feet high, though the last fall of snow decidedly marred its beauty. The soil is geologically called brick earth, and it is on a south slope, where I can grow most things, such as *Eschscholtzia Stauntonii*, *Chamærops Fortunei*, *C. humilis*, *Dasyllirion gracilis* and other half-hardy plants. I have also grown *Cupressus funebris* and *C. sempervirens*. This season *Eschscholtzia Stauntonii* has kept its wood. *Ixias* have seeded with me, and all conservatory *Fuchsias* except *F. fulgens* and its hybrids and *F. arborescens* do out of doors. Even those *Gladioli* I have tried make new bulbs and come up again, so there must be something in the soil that suits them.—C. D. LANGWORTHY, Claygate, Surrey.

Ivy for Damp Walls.—Referring to the use of Ivy for covering damp walls, mentioned on page 97 of THE GARDEN for February 27, there would appear to be two distinctly opposite views of the question. The house that I am now living in is an old brick one facing south, and when I came into it some twelve or thirteen years ago I found part of the front covered with a thick coating of Ivy from the ground to the roof. I soon found that the wall of the dining-room, against which the Ivy grew, was exceedingly damp, so I decided to have the Ivy removed, which was not a very difficult task, as it came away in huge sheets some 2 inches or 3 inches thick, composed of matted and interwoven roots and having the appearance of a thick, soddened blanket or felt. Since then I have had the Ivy kept regularly cut back, so as to prevent any lodgment of water, with the result of a dry inner wall. This, I think, proves that with care in preventing the roots getting matted, and keeping it well clipped to

let in air, Ivy may be beneficial; but it must never be neglected.—J. R. J.

Mr. Cuthbertson and Antirrhinums.—I was interested to read in THE GARDEN for February 20 a review of Mr. Cuthbertson's book on Sweet Peas and Antirrhinums. In the review it is said that "Another point in favour of the Antirrhinum is that up to the present it has not been subject to any serious disease, though in America we believe a species of fungus rust causes considerable trouble." For the last two or three years we have been unable to grow Antirrhinums with any success owing to a spot disease that attacks the leaves and stems. A year ago I sent specimens to THE GARDEN for examination. I was told that the plants were suffering from the fungus *Septoria Antirrhini* and that this fungus was apparently spreading over the country, as many complaints had been made. I was advised to spray with potassium sulphide. This I did at intervals from the time the seedlings were small, with, I regret to say, very little success. I have lost most of my summer-sown plants, some varieties having quite gone out, and in several gardens near I have seen plants attacked in the same way. I should be very glad if Mr. Cuthbertson can tell me if this is the American disease, and if there is any prevention and cure.—E. K. POTTER.

Wallflowers in Pots.—The value of Wallflowers in providing a floral feast as spring bedding plants is familiar to most of us, but it is worth while considering their merits as pot plants also. When we realise that well-flowered specimens may be obtained early in the New Year, and that at but trifling expense, it would certainly appear as though this popular subject is worth a more extended use for the embellishment of the conservatory than it at present receives. The culture is simplicity itself. Sow the seeds in the ordinary way as for bedding purposes, and then, when large enough to handle, prick out the seedlings in rows 1 foot apart and allow 6 inches between the plants. It is best, however, to only allow a medium depth of soil, as this tends to prevent the roots "wandering" too deeply, and naturally enables the plants to be lifted for potting with the root-balls more intact. It is quite immaterial to a few weeks when this is done, but for the main batch of plants the early part of November does well. No special compost is required, and 4½-inch pots will accommodate really large plants. After potting, they should be kept in a cold frame until the roots have thoroughly "gripped" the soil, and then it is safe to begin gently persuading them to "move" a little in a cold house. No stimulant is necessary until the flower-spikes show, when one of the many approved foods certainly aids if applied weakly at every third watering. There are so many excellent varieties now offered that it is almost presumptuous to name particular ones, as I feel sure nearly all the varieties would respond to pot treatment for flowering. However, having thoroughly proved three, I will make bold to mention them. They are Carter's Old Gold, height about fifteen inches; Sutton's Fire King, the same height; and Webb's Kinver Favourite, which is a few inches taller.—H. TURNER, Serlby Gardens, Bawtry, Yorks.

FORTHCOMING EVENT.

March 30.—Royal Horticultural Society's Exhibition of Flowers, Plants, &c., 1 p.m. to 6 p.m. Lecture at 3 p.m. by Mr. Thomas Stevenson on "Chrysanthemums in Pots." Royal Horticultural Hall, Vincent Square, Westminster.

SEASONABLE NOTES ON CARNATIONS.

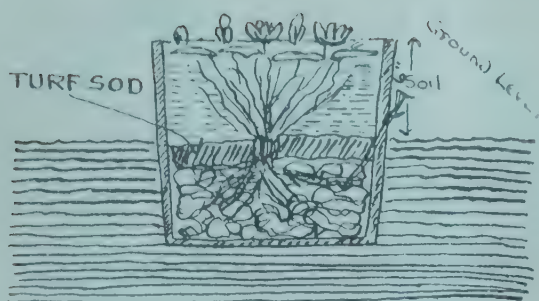
Border Varieties.—The past winter has been one of the worst possible for autumn-planted Carnations, the almost continual moist weather having seriously crippled the less robust varieties. These are usually broad-leaved sorts, such as Leander, Lady Hermione and yellow-blooded kinds. After removing the withered and damaged foliage, which is best effected by means of a pair of scissors—a knife, though ever so sharp, being liable to loosen the plants—the beds should be hand-weeded, hoed when the surfaces are sufficiently dry, and a dressing of manure, such as soot, pigeon or poultry manure, or superphosphate of lime, evenly applied. Those plants that are obviously too much weakened to do any good should be replaced by reserves; but it is often seen that very weak plants, provided the soil is nicely fertile, grow into good material by flowering-time, so that some caution must be exercised in eliminating at least the more expensive or rare varieties.

Introducing Novelties.—The present is a suitable time to introduce novelties or varieties that need reintroduction, for Carnations in some soils, or perhaps more truly in some climates, are apt to degenerate, and a change of stock when degeneration occurs is imperative. Though unpotted layers are best to purchase in the autumn, it is better at this season to go to the expense of obtaining plants thoroughly established in pots. These do not suffer at all from drought, as plants lifted from the open do. Even home-grown Carnations take to the soil much quicker if transferred from pots than do those which have been bedded in frames, no matter how good the "ball" may appear.

Plant Early.—The very earliest opportunity to plant should be embraced. Plants are now beginning to grow, and late spring transplantation has on that account a weakening influence, owing to root action being checked for a time. In large gardens, where there is usually space for a number of beds, Carnations are undoubtedly best grown *en bloc*, reserving free growing and flowering varieties, such as Raby Castle and Henry Falkland, for grouping in mixed borders.

Soil Preparation.—Provided the ground was prepared in the early winter, or, better, in the autumn, preparatory work at this time will consist in re-digging the surface a few inches in depth to make doubly sure of every lump of soil being broken, and if it is considered necessary, some quite rotten manure, or in heavy soil a very liberal dressing of rough leaf-soil, incorporated at the same time. Lime is always of value, and a sprinkling of powdered lime may be very advantageously applied to the surface previous to planting. Though beds to be planted in the autumn should not be quite level, but slightly rounded, at this season the ground should be level. The beds are marked out by dividing the ground into foot spaces, missing every fifth or sixth, which provides an alley for getting at the plants and flowers. Longitudinal lines bisect these, and a plant is put in at the point of each intersection. Some kinds of plants do well, and perhaps all the better, if rather deeply planted.

Carnations, which are sub-suffruticose, resent deep planting, and this is a point that cannot be too carefully attended to. It is to be expected that no one would dream of planting until the



SECTION OF WATER LILY TUB AT K IN
"ROSE COTTAGE" PLAN.

soil has become moderately dry, and, that being the condition, after planting is finished the soil should be firmly compressed by foot pressure. Every plant that is likely to be blown about by high winds should have a short stick applied and the plant be fastened to it, and, of course, the soil, in conclusion, must be neatly hoed to cover footmarks.

R. P. BROTHERSTON.

TWO COTTAGE GARDEN PLANS.

HINTS FOR DESIGNING VERY SMALL GARDENS.

It has been suggested to us that plans for laying out very small gardens belonging to semi-detached cottages would be useful, and we have therefore asked Mr. Dillistone, who, of course, is generally occupied with much larger designs, to furnish the following:

A question often asked is, "What can be done with a garden about 60 feet or 70 feet long and 25 feet or 30 feet wide?"—such gardens, in fact, as are provided with the usual semi-detached suburban villa. Quoting from a letter recently received,

"Now this is the most miserable garden to tackle." It is a fact that the conditions are not inspiring, and that gardening effort usually begins and ends with digging a narrow border round the outer bounds and maintaining a more or less unsatisfactory plot of grass in the middle. In presenting to readers the accompanying plan for two such gardens, I hope I shall succeed in showing them that even such small plots, devoid of any element of interest as they apparently are, can be made capable of providing a very great deal of interest, varied treatment and pretty effects.

"**Lavender Cottage.**"—First we will consider the design and planting of "Lavender Cottage." On the right, entering the gate, Border A is more or less essential, and is a line fixed by the building arrangements, because the whole width left between the house and fence is not required for a path. There are many ways of planting it that will make a cool and pleasant approach to the house. Of course, there must be a few creepers on the fence, Jasmine or Honeysuckle, for instance. The border will be in partial shade, being on the north-west side of the fence, and is, therefore,

eminently suitable for planting Ferns. Lastreas, Athyriums and Polystichums would all do well therein, and a pretty idea is to plant spring-flowering bulbs among them, such as Scillas, Crocuses and Grape Hyacinths, especially such as will flower about the time the young Fern fronds are beginning to unfold. The soft, delicate greenery of the Ferns lends an effective groundwork for the colour of spring flowers. For a later effect, some of the shade-loving Lilies can also be grown, and their blooms, rising above the Ferns, are enchanting to the eye. The stem-rooting varieties of Lilies enjoy such a position

flowers and annuals. I shall later give a suggestive list of plants suitable for this border, indicating by the numbers shown in the plan the positions for each. On the other side of the wall should be planted a simple border of Lavender, preferably one of the dwarf-growing varieties, because they are more suitable for a small garden. *Lavandula spicata nana compacta* is a good variety. Carpet the ground under the Lavender with purple Aubrietias, among which plant spring and autumn Crocuses. All of these will thrive without being disturbed for several years, and such a border will be bright during the greater part of the year.

The Path itself can be of any material that is neat and dry. Bricks on edge are suggested in the plan, and as these quickly take on a rich brown red tone, are not offensive to the eye. In the crevices between the bricks some of the common, close-growing Sedums should be allowed to ramble. The centre of the path should be arranged to be at right angles to the house and central with the window. The whole effect is here designed, in fact, to form a picture from the window of what will probably be one of the most frequently used rooms in the house. Two (or three) weeping trees, such as Weeping Birch or the Golden Weeping Willow (*Salix vitellina aurea pendula*) will act as a screen to the beyond if it is unpleasant, or, if the distance is a pretty bit of country, the trees can be arranged so that they will act as a frame to focus the view on to such a scene. Between them is a suitable place for a simple seat, and the trees can be easily trained to form a sort of arbour.

An Interesting Feature in the way of a sundial, or vase planted with flowers, placed at D, will create a diverting and attractive break to the monotony of the lines. The planting of the remaining positions is clearly stated on the plan, and is

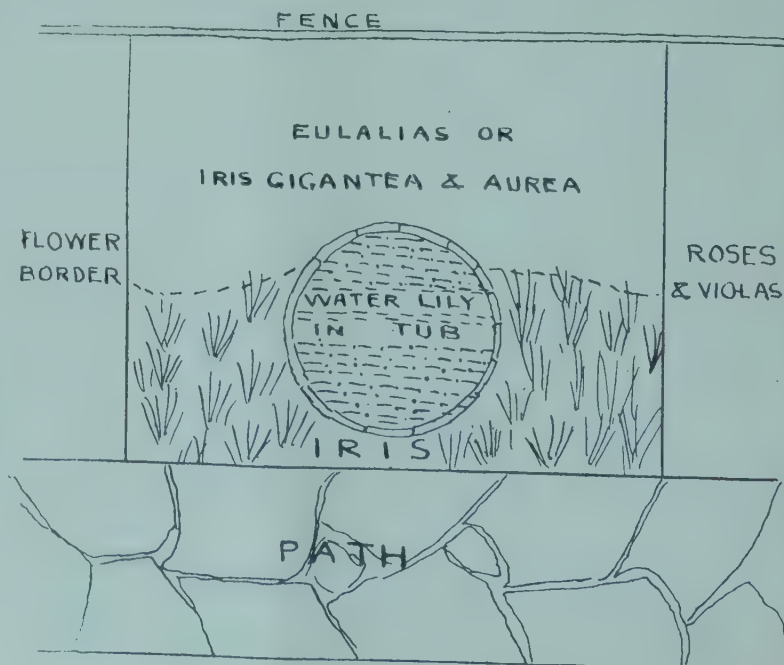


PERSPECTIVE OF THE WATER LILY TUB AT K.

because of the shade afforded to their roots.

At the end of this border a length of trellis will divide it from the back garden, rendering the latter as secluded as possible, and also enclose a small open space by the kitchen door. The archway through the trellis is so arranged that the view from the window at the back of the house is quite clear to the garden beyond. A few creepers can be trained on the trellis and over the archway.

Looking through the window, the eye will travel on through the archway down the path, on one side of which can be arranged a border of hardy



PLAN AT K IN "ROSE COTTAGE" GARDEN.

suggested because it will give a long flowering period at a minimum of expenditure. Moreover, all the plants are of easy cultivation. In the front garden the Border B should be reserved principally for sweet-smelling flowers, such as Mignonette, Rosemary, Night-scented Stock (Matthiola), &c., and as it is a pretty idea to make the garden live up to the name of the cottage, Lavender should be used freely everywhere. In C, plant a few of the smaller-growing flowering shrubs. In the

“Rose Cottage” garden the scheme is entirely different. Beds E, F, G, H and I should all be Dwarf Polyantha or China Roses, or can be omitted altogether and left as grass. Climbing Roses should be planted to train on the house and over the archway, with which can be mingled Clematis. Border J can be treated as described for A, because in this case the house will cast a shade. The planting of the principal borders will, of course, be a matter of individual taste, but the scheme for the large border at “Lavender Cottage” can

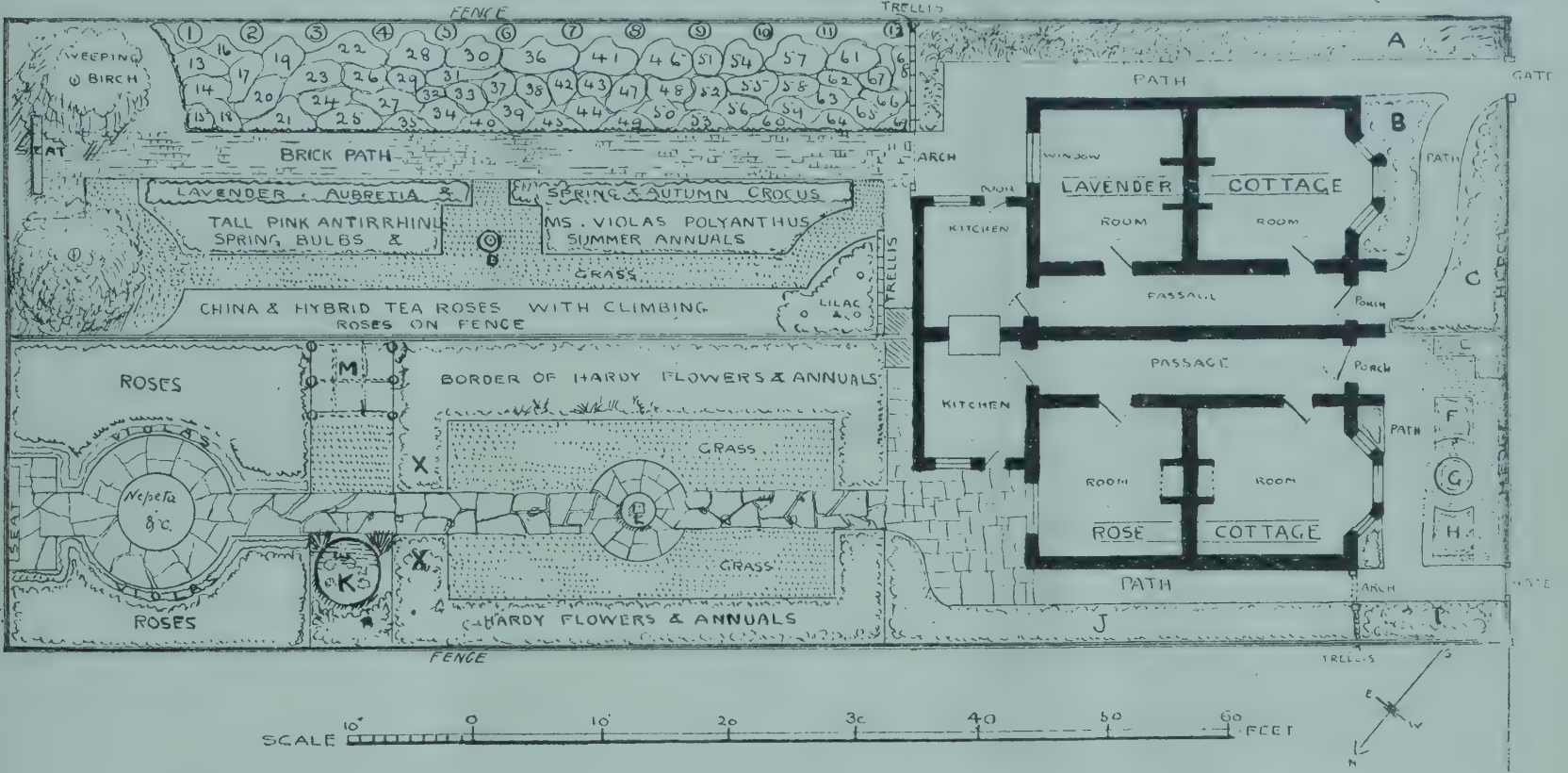
Thymes, Sedums and other miniature forms in the interstices between the stones. In studying the planting of the borders, one point is worthy of particular attention. In the “Rose Cottage” garden, where marked X the grouping should be simple but distinct, bold and permanent. A suggestion for such a position is Saxifraga (Megasea) cordifolia on each side of the path, a Yucca filamentosa on either side, and surrounding it Linum perenne, mingling with pale yellow or pink Antirrhinums; but there are many other ways of obtaining the desired effect, viz., point, focus and perspective as seen from the window.

BORDER OF HARDY FLOWERS AND ANNUALS.

No. on Plan.	Name.	Colour.	No. of Plants.
1-12	Climbing Roses, Clematis and purple-leaved Vine alternately trained on stakes 6 feet or 7 feet high and festooned from point to point, but kept pruned very thin to give a light and pretty background to border flowers.		

No. on Plan.	Name.	Colour.	No. of Plants.
44	Aster subcaeruleus major	Grey blue	5
45	Cerastium tomentosum	Grey foliage	5
		white flower	
46	Delphinium Persimmon	Azure blue	3
47	Statice latifolia	Lavender	3
48	Scabiosa caucasica	Lavender blue	3
49	Aubrietia Lavender	Lavender	5
50	Gypsophila repens rosea	Pale pink	5
51	Lupinus polyphyllus	Blue	2
52	Campanula macrantha	Purple	6
53	C. muralis or pusilla	Blue	5
54	Hyacinthus candicans	White	9
55	Gladiolus Baron Joseph Hulot	Purple	6
56	Achillea Kellneri	Grey foliage	2
		white flower	
57	Iris asiatica	Blue to purple	5
58	Aster Thompsonii	Lavender	3
59	Phlox Dr. Charcot	Violet	3
60	Stachys lanata	Grey foliage	5
61	Aconitum Spark's Variety	Violet blue	3
62	Chrysanthemum maximum	White	3
63	Campanula carpatia alba		3
64	Iberis Snowflake		3
65	Viola gracilis Purple Robe	Purple	6
66	Iris germanica violacea	Violet purple	6
67	Pæonia festiva maxima	White	1
68	Lilium candidum		6
69	Nepeta Mussinii	Lavender	6

It must be understood that this border is not arranged to what is generally termed a “colour



PLANS FOR TWO VERY SMALL GARDENS. THESE CAN BE MODIFIED TO SUIT ACTUAL REQUIREMENTS.

be easily adapted. At L, central with the window, place a simple vase, figure or sundial. K offers a position in which to indulge in a modest way in one of the most fascinating efforts of gardening. It is a tub about three feet across and three feet deep, partially sunk into the ground, and in which is planted one of the delightful pink or crimson Water Lilies. The details for this are given in the accompanying illustrations on page 136. M should be a Rose-covered arbour, made by training Roses over a simple construction of Larch poles. A Rose garden in miniature will terminate such a scheme effectively, and if the centre bed is planted with Nepeta Mussini, and pink Antirrhinums, and the Rose borders are edged with mauve Violas, the effect will not fail to satisfy the most fastidious taste.

In neither of these two schemes should the area of grass be less than shown in the plan, and if the central walk is paved, a softening effect can be introduced by planting some little Campanulas,

13	Achillea Ptarmica The Pearl	White	3
14	Phlox Tapis Blanc		3
15	Nepeta Mussinii	Lavender	6
16	Tritoma Nelsonii	Flame	3
17	Alstroemeria aurantiaca	Orange to gold	5
18	Aubrietia Perkinsii	Purple	5
19	Helenium cupreum	Copper red	3
20	Hieracium aurantiacum	Orange red	3
21	Stachys lanata	Grey foliage	5
22	Helenium grandicephalum striatum	Orange and crimson	3
23	Pentstemon Southgate Gem	Crimson	5
24	Stock (Ten-week)	White	5
25	Campanula carpatia	Pale blue	3
26	Pæonia officinalis	Deep crimson	1
27	Heuchera Flambeau	Flame red	3
28	Tritoma Lachesis	Apricot red	3
29	Thalictrum flavum	Pale yellow	3
30	Aconitum oeranthum	Soft yellow	5
31	Pentstemon Myddelton Gem	Pink	5
32	Aster Amellus Riverslea	Grey blue	3
33	Iris Canary Bird	Pale yellow	5
34	Pink Pentstemon		6
35	Viola gracilis	Purple	6
36	Phlox Elizabeth Campbell	Salmon pink	3
37	Pæonia sinensis Blush Queen	Blush	2
38	Heuchera elegans rosea	Rose	5
39	Pink Antirrhinums		9
40	Nepeta Mussinii	Lavender	6
41	Lavatera Olbi	Rose pink	3
42	Pentstemon tubiflorus	White	3
43	Lupinus polyphyllus roseus	Pink	2

scheme,” except that at certain points provision is made for pretty colour groupings, such, for instance, as 39 (pink), 40 (lavender), 45 (grey and white), 38 (rose pink) and 33 (creamy yellow), and throughout it is attempted to arrange a border that shall give pleasing colour groupings and, as far as can be procured in such a limited area, a long period over which there shall be as much flower as possible. With regard to the quantities allowed, three plants, generally speaking, are equivalent to an established clump two years old. If the quantities are reduced to one-third, therefore, the ultimate effect will be the same, but this will not result until the second summer after planting. Many people prefer (on the score of saving expense, &c.) to plant more thinly, fill in the intervening spaces with annuals, and wait for full development. By a judicious use of common sense a great deal may be done in this way, and in planning a garden it must always be remembered that personal tastes have to be considered.

GEORGE DILLISTONE.

DAFFODIL NOTES.

BY THE REV. JOSEPH JACOB.

THE ROYAL HORTICULTURAL SOCIETY'S FORCED BULB SHOW.

THIS important two days' show was started very largely with the idea of giving Daffodils a chance of showing themselves, in a sort of official way, when grown in pots. Accordingly, one hoped to see a good muster of exhibits and flowers. On the present occasion the Hyacinth predominated and the Daffodil had to play second fiddle. For one reason I was glad, for on the principle of it being an ill wind that blows nobody any good, they were there to greet the three Dutchmen who, braving the

well grown, the varieties were nicely arranged, and there was sufficient diversity to satisfy everyone. At the expensive end of the scale there was an excellent example of White Emperor, which is now priced at twelve guineas a bulb; and at the other I noticed Autocrat and John Bain, both splendid pot plants which can be bought for a few shillings a hundred. A vase of Homespun not far away from Autocrat made me wonder which of the two the general public would like best as a decorative flower. There is very little doubt that the public and the specialists do not see eye to eye. For example, as I was writing my notes I heard some people "cracking up" Mrs. H. J. Veitch, while Cornelia, which was close by, attracted no notice. The vase of Van Waveren's Giant was splendid. I do not think I ever saw it finer. The new Poetaz, Admiration,

Messrs. J. R. Pearson and Sons' blooms lacked size. I wonder if in their case good, hard, single-nosed bulbs were selected as far as possible. It might make the whole difference. As was to be expected, the Lowdham Giant Leedsii's were very much in evidence, and we had a good opportunity of making comparisons, for, odious as they so often are in the everyday affairs of life, among Daffodils they are necessary. Capella, which I noticed more than once last year, struck me as a very pretty little bloom, on account of its refined trumpet-shaped corona. Margaret, a good-looking 1B (white trumpet), was one of the newest flowers on this stand. It resembled Empress in its general look, but the perianth segments appeared both smoother and wider. I must not omit a good vase of Pedestal (a white incomparabilis). It is interesting to know that this late variety, like



A BEAUTIFUL GROUP OF FREESIAS GROWN BY MR. GENTLE, GARDENER TO MRS. DENISON, LITTLE GADDESSEN, HERTS.

German submarines, had come over to see the show. As I have said, the Daffodil compartment of my mind was disappointed; but as a general florist I heartily endorse the remark of Mr. Thomas Stevenson of Sweet Pea and Chrysanthemum fame, who told me he thought it was the prettiest and brightest of all the Forced Bulb Shows. May I say to our Daffodil friends who usually exhibit, but who from one cause or another did not do so this year, that we must not let the general public think that they can get on without forced Daffodils. There were three orthodox cut bloom groups—a small and select one from Inglescombe; a second, much more extensive, from Lowdham, but with blooms below par in size; while the "best of all the three" was Christopher Bourne's from near Bletchley (Bletchlee). This struck me as a very good exhibit indeed. The flowers were

showed up well; so did King Alfred and the old maximus. There were one or two novelties. The one that appealed to me was a small, cool-eyed variety called Lorna. It is a small pointed 2B (white-perianthed Barrii) with a large, cool-looking eye of pale greeny yellow with a distinct band of red. The perianth is pointed and reflexes slightly. The Swan is a drooping white Ajax with a long trumpet and a campanulate perianth. I was told that it is a robust grower and a very free bloomer. I was glad to have my own experience confirmed about the value of choosing single-nosed bulbs for potting when particularly good results are wanted. Mr. Chapman, who is Mr. Bourne's grower, told me that he has found this out from his own practical experience and observation, and that he attributed his well-grown display very largely to this.

Cleopatra (yellow trumpet), will respond to mild forcing. Mr. Walter T. Ware's two dozen contained several nice varieties under number. Of the named ones, there was a fine example of White City. A good bloom measures—D, 4; S, $1\frac{1}{4} \times 1\frac{1}{4}$; C, $\frac{3}{4} \times \frac{3}{4}$. It is a most distinguished-looking, small-cupped Leedsii, after the style of White Slave. White Cockade is a new pale double. It has ivory white guard petals and a large, pale citron cup, with the centre nicely filled with similar-coloured bits of converted stamens, from which a few long, white ears, like we frequently see in a double Snowdrop, protrude. I hope we shall see this flower again from the open. I know it attracted several people. Flash must also be noticed. It is a sort of giant Beryl, with a large, wide, reddish orange cup, and big primrose segments which reflex a good deal.

A last word must be about the delightful boxes on Messrs. Barr and Sons' exhibit, full of *minimus*, *nanus*, *Queen of Spain*, *Bulbocodium*, *citrinus*, &c., peeping out of moss. It was a very pleasing display, and it would be nice to see the plan adopted more generally for these small kinds.

Measurements. — No official order was adopted at the Narcissus committee, but after some discussion it was agreed that it would be well to introduce letters to make the measurements clearer. Thus, D will in future with me stand for the diameter of the flower; S, for the measurements of the *inner* segments, (1) the width and (2) the length; C, for those of the *corona*, (1) the length and (2) the width at the top. If under C only one number is given, it will be that of its width or diameter.

A MAGNIFICENT GROUP OF FREESIAS.

I ENCLOSE you a photograph of *Freesias*. The group was grown from 150 bulbs. I quite agree with Mr. Pearson, whose article appeared on page 89, issue February 20, that they ought to be grown a great deal more than they are. I always cover my bulbs with Cocoanut fibre, and leave them out in the open until they are 2 inches or 3 inches high; then put them in a cold frame. (I treat *Triteleias* the same, and they make a very nice edging to the *Freesias*.) In staking, I use Privet or Hazel twigs, as they are light and green and neat in appearance, as you will see. A. G. GENTLE.

Little Gaddesden, Berkhamsted, Herts.

THE SHIRLEY POPPIES.

THERE are few hardy annuals more highly appreciated for cutting than the modern strains of the Shirley Poppy, for which the world owes an everlasting debt of gratitude to the Rev. W. Wilks, the secretary of the Royal Horticultural Society. It is true that others have, since Mr. Wilks gave them the lead, improved the Shirley Poppy and given us a number of beautiful flowers widely divergent in colour, as witness those of slaty blue colour illustrated on page 85 of THE GARDEN for February 20. It is these charming art shades, combined with long, wire-like stems and beautifully crimped petals, that render the newer Shirley Poppies so valuable for indoor decoration.

They have one fault, however, viz., that the petals drop very quickly once the flowers are fully open. For this reason it is wise to cut them in the bud stage, just when the

coloured petals can be seen through the aperture caused by the division of the green sepals, and allow them to open in water. Then it is we see the dainty goffering of the petals to perfection.

Fortunately, these Poppies are quite easily grown. It is true they appreciate well-drained soil that

up much too thickly, hence early and rigorous thinning is necessary, the Shirley Poppy being by nature a robust and branching plant. Seeds of separate colours can be obtained if desired, or good mixtures if preferred. The illustration on this page represents a beautiful photographic study of white flowers. D. M. L.



WHITE SHIRLEY POPPIES AS CUT FLOWERS. SEEDS MAY BE SOWN OUTDOORS DURING MARCH AND APRIL.

SOME GOOD MOCK ORANGES.

AMONG the many hardy shrubs which flower in late spring, none has sweeter flowers than the Mock Oranges, or *Syringas* as they are often erroneously called. Until a comparatively recent date these were represented by large and rather unshapely shrubs that needed considerable space to show off their flower beauty to the best advantage. The introduction of a dwarf variety named *Philadelphus Lemoinei* some years ago was, therefore, of considerable advantage, and time has proved that this was but the forerunner of many of its class. These dwarf-growing Mock Oranges are excellent for planting towards the front of a mixed border of choice shrubs, or a large lawn bed may be filled with them, and the bed carpeted with *Scillas*, *Winter Aconites*, *Snowdrops* or other early flowering bulbous plants. Fortunately, these shrubs are not fastidious as to soil, providing it is well enriched with manure. As the best flowers are produced on wood of the previous year's growth, a good system of pruning is to cut the shoots back almost to the ground each year immediately the flowers have faded, and at the same time give a good top-dressing of partially decayed manure. This induces the formation of strong young shoots, which will flower the following spring. By adopting this method of pruning, the shrubs are always kept neat and compact, and can be used in many situations where larger and more robust kinds would be out of place. Among the most beautiful of these new dwarf Mock Oranges is that known as *Philadelphus purpureo-maculatus*. As its name implies, the four white petals of each flower have a purple blotch at their base, and this imparts great charm to the flowers. *Rosace* has large, creamy white, double flowers which are particularly fragrant. *Fantaisie* is a beautiful large single variety, some

of the flowers having a delicate pink tinge towards their centres. *P. Lemoinei erectus* is an older variety than those named above, and, as its name implies, is of erect growth. Otherwise it is a counterpart of *P. Lemoinei*, the flowers of which are pure white, very fragrant and of medium size.

is not over-rich, but, apart from that, they may be sown in almost any part of the garden, or even open spaces in the woodland, that one may wish. On very light soil, autumn sowing gives wonderfully good results, but in most gardens it is best to rely on March or early April sowings. Owing to the seeds being so small, the seedlings invariably come

SEASONABLE NOTES ON CHRYSANTHEMUMS.

AMATEUR cultivators throughout the country will now be engaged in the work of transferring the young plants to larger pots. As good results follow good work, as a rule, it is well worth paying close attention to that of repotting at the present time. The enthusiast rarely fails to spend considerable time over the work of final potting, but he sometimes does not, as regards the quality of the compost, give similar attention when carrying out intermediate repottings. A fibrous loam, forming the chief part of the compost, acts as a suitable medium, in which the roots will remain healthy throughout the season. A fibreless, sour soil is neither fit for the retention of the roots nor as a storehouse for stimulating foods which are given from time to time. So we see how important it is to provide a good but simple potting compost at all times. By "simple" I mean one that does not contain numerous kinds of ingredients, as sometimes mixtures that are really poisonous to the plants are prepared for them. Fibrous loam, sweet leaf-soil, horse-manure that has been prepared so as to get rid of the poisonous gases in it, sufficient coarse sand to ensure porosity, a small quantity of bone-meal and old soot will constitute a compost ideal for the plants at each repotting. The only difference will be in using it in a rougher state as the size of the pots is increased. At this stage there should be a reduction in the number of plants, assuming that more were propagated than will be required at the final potting. It is not advisable to keep more now, because they only take up valuable space, thus spoiling to a certain extent the chances of those retained, and entail needless labour.

How to Pot.—All the young plants will not be rooted to the same extent, so that it will be advisable to make a selection, first picking out those that possess the most roots. All will not require the same sized pot, because some are stronger than others, and the strongest must be placed in the larger pots. At each repotting till the final one the same plan should be adopted. Place one hollow-shaped crock on the hole in each pot, and a few small ones before putting in some of the more lumpy compost. Many crocks are not required; it is the manner in which they are placed that matters. Make the soil moderately firm with the fingers, but do not use a potting-stick at this stage.

Watering and Staking.—If the compost is in a medium state of moisture, water will not be needed for at least two days after the plants are potted. If the leaves droop, a light spraying will be beneficial. Then water thoroughly and wait

until the soil is approaching dryness before giving more. If the soil is kept in a saturated state, the plants will show more signs of distress than if it became rather dry occasionally. Loosely fasten the stems to neat stakes when the plants are repotted.

Position.—The cold frame is an ideal structure for the plants now and until they are hard enough to be placed outside. For a week or so after potting keep the frame rather close; then gradually increase the amount of ventilation.

Stopping Plants.—When it is necessary to stop a plant, the tip must be removed about ten days before the plant is repotted or ten days afterwards. Stopping plants always causes a check to their growth, and if the stopping is done

particularly noticeable during the evenings of hot days. If used as an edging, this ought to be at least a foot wide, anything less than this failing to give so good an effect. This *Alyssum* is quite dwarf, seldom growing more than 4 inches high, and I find it will thrive in almost any kind of soil.

G. B. D.

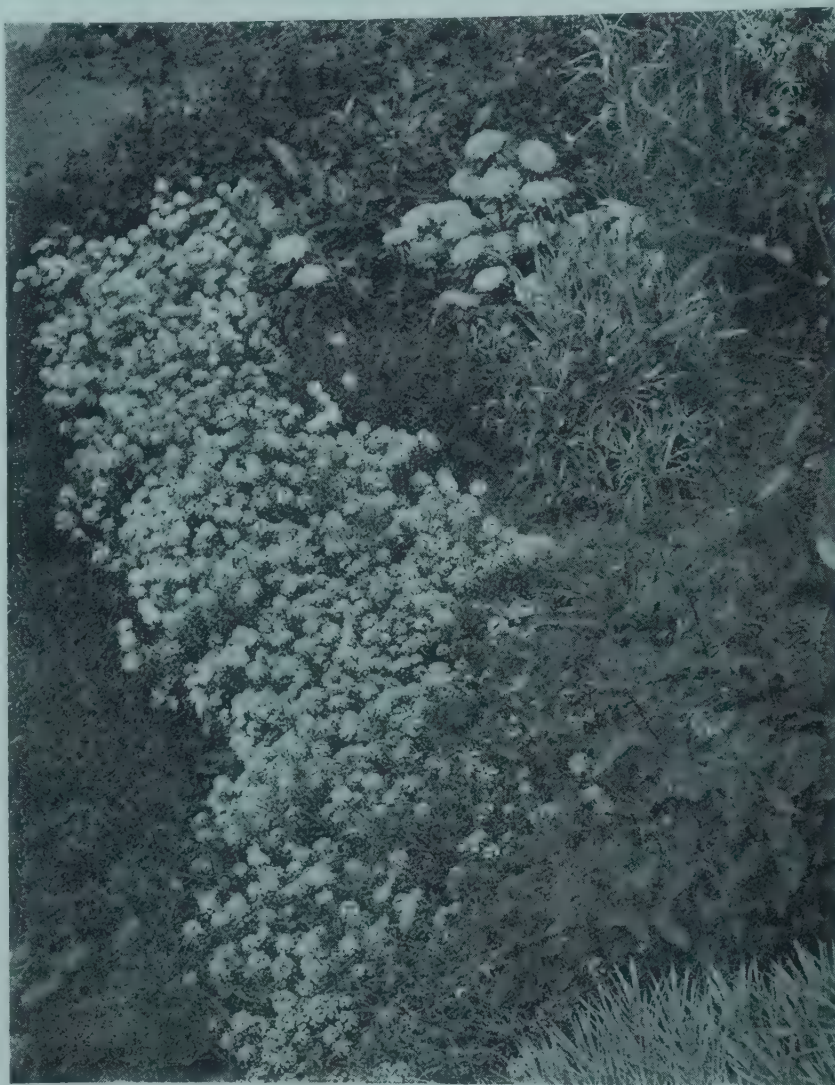
HINTS ON GROWING ASPARAGUS.

With good attention Asparagus will thrive in the same beds for many years, but, to keep up a supply of large, thick heads, new beds should be made at intervals, and only the best varieties ought to be planted. Giant French is a fine variety for the production of large heads; and Perfection, Connover's, Colossal and Purple Argentine will also be found excellent. The best time to plant the roots is early in the spring, just as the new growth commences; but the beds should be thoroughly prepared some weeks in advance. In the more unfavourable parts, and where the soil lies somewhat low, good drainage must be employed and the beds thoroughly trenched, adding as the work proceeds plenty of well-decayed manure and sandy loam, with a good sprinkling of salt. If, however, the land is naturally well drained and the soil of the right character, less preparation of the beds will be needed. I usually make the beds 4½ feet wide and plant strong, healthy crowns 1½ feet to 2 feet apart, so that each root may have ample room to develop and produce good results.

Those about to make new beds should set to work without delay, so that by the first or second week in April the soil will have somewhat settled before planting. First stake out the beds the desired width, using strong stakes and driving them well into the ground at each corner; then prepare the soil as above advised. Some prefer to raise their own plants from seeds, sowing a couple of packets of these annually. As, however, good

plants, two years and three years old, may be obtained at a low cost, to save time I would advise purchasing sufficient roots from a good firm.

If the plants are to be raised from seeds, have the beds in readiness, and when the soil is in a suitable state, sow in lines 18 inches to 24 inches apart and an inch deep. As soon as the seedlings are large enough, thin to the required distance in the lines. Keep the beds clear of weeds and encourage healthy growth. A sprinkling of salt at intervals or a dressing of suitable manure will prove highly beneficial to the growth of these plants. As the plants grow, take care to employ some kind of support to prevent the grass from being broken off at the collar in rough



PORTION OF A SMALL MIXED BORDER WITH A BROAD EDGING OF ALYSSUM MARITIMUM CARPET WHITE.

at the same time as the repotting, the check would be greater.

AVON.

A GOOD HARDY ANNUAL FOR EDGINGS.

In my opinion, one of the best hardy annuals for edging is a compact form of *Alyssum maritimum* named Carpet White. If seeds are sown thinly early in April they quickly germinate, and it is not many weeks before the seedlings form neat little tufts of greenery which, in due course, develop and form a complete carpet. The plants commence to flower quite early, and continue until autumn frosts call a halt. It is an annual much appreciated by bees, its honeycomb-like fragrance being

weather, as this would prove very detrimental to the roots.

Old beds greatly benefit by a few applications of liquid manure during the growing season, and by not cutting the heads too severely; also keeping the beds free from weeds, and the

can realise the pleasure in watching each seedling open its first flower. The majority will be "weeds" and of no value; but there is always that possibility of raising a "Derby winner," and herein lies the chief interest. I have previously referred to the various sections of Auricula; but it will be noticed that many seedlings will not conform to the rules as laid down by florists, and are in consequence "outsiders" or among the "a'so ran."

A Plea for the Fancy Auricula.—Now, those seedlings that do not fall into either of the orthodox groups are known as "fancy Auriculas," and every raiser should grow the best of his seedlings a second year, when a more thorough selection can be made. There will be many plants that will come under the above heading which possess much beauty, and are suitable either for pots or the open border. We have fancy Carnations and other plants; why not fancy Auriculas? It may make the Auricula more popular, especially if a few amateurs take up this section.

T. W. B.



HOW TO PLANT ASPARAGUS. NOTE THAT EACH CROWN IS PLACED WELL AWAY FROM OTHERS.

removal of a few of the weaker growths during the early part of the growing season.

Wrotham Park Gardens, Barnet. H. MARKHAM.

SEASONABLE NOTES ON AURICULAS.

DURING the month of March the Auricula-grower will become more interested in his plants, as some of the early varieties will begin to push up their scapes. The plants should be grown quite cool, and only sufficient protection given to prevent them from becoming frozen, as the Auricula never thrives in heat. The fact that it is an alpine subject should always be borne in mind, and for this reason cool and hardy treatment must be the rule if the best results are to be obtained. At this period of the year the weather will need watching, and on bright, warm days full ventilation may be allowed; but occasionally such days are followed by 8° or 10° of frost, when it will be advisable to close the frames and cover them with Archangel mats.

Fumigation.—Prior to the first flower opening I always vaporise the frames with XL All or some other reliable fumigant to kill any green fly that may be present. It is rather important that the fumigation be done before the flowers open, because the fumes take the colour out of the blooms; and should even a little green fly be on a few specimens, it spreads rapidly, and the plants would be thoroughly infested before the flowering season was passed. Some cultivators possess a cool, low house, and where such is the case the plants are arranged upon inverted flower-pots, so as to bring them near the glass and level with the eye, when their exquisite forms and various tints of colour can be seen to the best advantage.

Seedlings Flowering for the First Time.—When a man or woman takes up the culture of any particular class of plants, they very soon have a desire to raise at least a few seedlings each year. This is as it should be, and only those who have been engaged in this fascinating pursuit

HINTS ON PRUNING ROSES.

THE article upon pruning which appeared in THE GARDEN of February 28 dealt more especially with the early pruning of various sections, but the present notes will cover the ground more fully, and may be taken as an addition to the article just alluded to.

Columns have been written in the past upon Rose pruning, and yet it always seems necessary to return to the subject each spring. Not that the art has changed, but more because there are always a large number of new readers of THE GARDEN to whom the past notes may not be accessible.

It may be asked by the novice, "Why is it necessary to prune Roses?" I think I cannot refer my querist to anything better than to the wild Roses of our hedgerows. A study of these will show that the Briar annually sends up from its base new growths to maintain the youthful vigour of the plant, because, after about two years, the Briar growths gradually deteriorate, whereas the young shoots are the picture of lusty health. Our object in pruning, then, is to encourage new growth, and with many Roses, unless the old wood be eliminated, new wood appears very slowly. Certain tribes, such as the Hybrid Teas and Teas, are so full of vigour that they will send out fine new growths even though the old wood remains; but if the grower cuts away some of the old shoots,

the blooming from those remaining will be considerably improved. Of course, there is such a thing as rational pruning. Unfortunately, many have an idea that all Roses should be pruned alike, just as one would a Privet hedge; but a little reflection on the part of my readers will show them that the most vigorous growers require their new wood shortening the least, whereas poor growers need hard pruning, so that the energy of the roots is concentrated upon fewer eyes or buds.

Before I go into details I would just say that I consider the middle of March early enough to prune Hybrid Perpetual and most of the Hybrid Tea Roses, whereas the end of March and early April is best for the true Teas and allied tribes such as the Monthlies and Polyanthas. Readers in the South could prune a little earlier, and those in the North a little later. Many individuals are tempted to prune earlier than the time stated if they observe the plants sprouting, only to be cruelly disappointed to find that a frost in April has upset all their calculations.

The secateurs, if thoroughly sharp, are the most convenient tool to use, and an inferior pair should be at hand to cut out old or dead wood. Always, where possible, cut to an outward-looking eye, a detail that is important if we study the symmetry of our plants. When commencing to prune a plant, first remove any dead wood and any growths that exhibit signs of exhaustion. Often one may find thick, old growths partially dead on one side. I attribute this to injury by frost probably a year or two back. At the time it did not show the injury, but has gradually become less vigorous. Such growths are best destroyed, for while they remain they, to a large extent, prevent new growths from springing up.

Next remove soft, sappy wood, no matter how robust it looks. Such shoots will bend readily, and, if cut, will be found to be nearly all pith. Our aim must always be to have wood with the least amount of pith. Such wood is technically termed "ripe" or "matured," and it is hard and rigid.

Readers must understand that these notes are not written for exhibitors, but for those who grow



THIS ILLUSTRATION SHOWS HOW AN ASPARAGUS PLANT SHOULD BE SET ON THE SOIL BEFORE COVERING.

Roses for the adornment of their gardens; therefore, if any reader desires to exhibit, I would counsel him to prune more severely than what I recommend here. Although I give the approximate length that various groups should be pruned, I may say that there is no hard and fast rule. Let

each reader use his own judgment, bearing in mind the principles that should govern our pruning, which I have tried to explain. I have selected a typical variety of each section, which, if that variety be studied, will, I think, explain matters as fully as though I mentioned a greater number.

Hybrid Teas of the vigour of Caroline Testout may have their ripe shoots pruned back to about six eyes. If the eyes are rather prominent, then prune to a fairly dormant eye, even though it means pruning to the fourth or fifth eye. Small, thin shoots may be cut to two or three eyes. In all cases keep the centre of the plant well open and try to picture what the plant will be like when the new shoots develop. Some kinds of greater vigour, such as Avoca, may be retained fully a length of 15 inches to 18 inches, whereas those of the growth of Le Progrès may be shortened back to about four eyes, and laterals to about two eyes.

Hybrid Perpetuals.—These are pruned much on the same lines as Hybrid Teas. Varieties of the Hugh Dickson type must not be hard pruned, or there will be all growth and no blossom. Retain the shoots from 1½ feet to 3 feet in length; in fact, it is best to treat such Roses either as pillars or climbers, unless grown as standards, in which case the strong growths may be cut back to about ten inches or twelve inches, and the lateral growths to about three or four eyes. Varieties such as Fisher Holmes should be pruned back to about eight eyes on all strong growths, and laterals to about two eyes. With this tribe it is a good plan to cut out the old wood in September, and by all means let there be a severe cutting away of such old wood, removing it right to its base.

Tea and Noisette Roses.—Varieties of extra vigour, such as the two Cochetts, William R. Smith, Marie van Houtte, &c., should have the basal growths reduced to about ten inches or twelve inches, and the laterals to three or four eyes; while varieties of less vigour, such as Mme. Hoste, ought to be pruned back to within 4 inches to 6 inches. All decrepit wood, and that injured by frost, must be cut out. Frequently Tea Roses are partially injured by frost, which is manifest by cutting a shoot, when the pith will be brownish in colour. Such growths will send out new shoots in the spring, but will either fail in the summer or will never be a success. It is far better to eliminate them now. If in such a mild winter as we have had some shoots start early into new growth, one such growth to each plant may be retained a good length, to be afterwards cut away if desirable. In all cases it is the sound, hard wood that gives us the most perfect flowers. In the Southern Counties and in sheltered districts where Tea Roses grow so freely and it is desired to have an abundance of bloom, a very moderate system of pruning may be adopted, provided the plants are not overcrowded with shoots; but even in their case some of the older growths should be cut away annually in order to encourage basal growth; for it is from the base we obtain the growths that provide us with the glorious autumn crop of flowers, both of the Teas and Hybrid Teas. The new

Pernetiana Group is somewhat difficult to manage. I am inclined to do a very moderate amount of pruning. I have grown Lyon Rose and A. R. Goodwin on these lines, and have had much success. It all depends upon the winter whether we can do this, for, as a rule, Jack Frost is a ruthless pruner. Where the wood is uninjured, try just tipping the shoots, and remove one or two if the plant is very crowded. Roses of this group, such as Juliet and Beauté de Lyon, may have their

strong growths retained a length of 1½ feet to 2 feet. Some have treated them as climbers, and although we get more flowers, they are not nearly so large or shapely as when the varieties are fairly well pruned.

China or Monthly Roses are treated like the Tea-scented varieties, save the Old Pink Monthly, Fellenberg, Armosa, and the like. These may be simply thinned out and their last year's growth left almost unpruned.

Polyantha or Pet Roses, if wanted as big bushes, need very little pruning, save a thinning to avoid overcrowding; but where employed as bedding plants or as edgings, pruning to within 4 inches to 6 inches of the soil is best.

Rugosa or Japanese Roses, if grown specially for their berries, are best pruned back to 4 inches or 6 inches—that is, their last year's shoots; but if wanted as big bushes, then merely tipping them will suffice. Conrad F. Meyer is a prodigious grower, and I usually retain its strong growths 4 feet to 5 feet long, and laterals from 6 inches to 12 inches. Nova Zembla and Rose à parfum de l'Hay are treated in a similar manner, while Georges Cain, Mrs. A. Waterer, &c. are pruned like strong Hybrid Perpetuals.

Moss Roses.—Leave the annual growths from 1 foot to 2 feet long, and laterals to about six inches. Damask, Alba, Bourbon and Hybrid Chinas should have the annual growths left from 1 foot to 3 feet long, according to the vigour of the variety. All the Briar family require merely tipping, but old wood should be removed as it becomes exhausted.

Scotch Roses are not pruned in any way. They seem to revel in being left alone. Most of the

Rose Species require no pruning beyond removing old wood occasionally. Where possible, open these out by placing a stake or two around the bushes and tying the growths thereto. Some lovely species are simply spoilt if touched with the pruning shears, for the half pendulous shoots are most elegant when covered with glorious bloom.

Banksian Roses must never have the fine, spray-like shoots touched, but in June it is advisable to remove some old wood when the plants become too dense. These Roses love to have their shoots well roasted in the sun; then they will bloom freely enough.

Single Roses.—Many of the lovely single Roses, such as Irish Elegance, are spoilt by pruning. I never prune this Rose, and I have it on an east wall, with growths 6 feet to 7 feet high, also, big bushes 4 feet to 6 feet through, growing in the walks. Gottfried Keller is very impatient of pruning. Often the operation has been the means of killing the plant.

Standard Roses of the big-headed sorts, like W. A. Richardson and Gloire de Dijon, need very little pruning. It is best to tie over the growths in umbrella fashion and shorten the laterals to three or four eyes. Of course, here, as with all Roses, decrepit old wood must come away.

Climbers on Walls should have all the new wood possible laid in and, where practicable, in a half horizontal manner, relieving the trees of old wood to make room for the young. Lateral growths are best reduced according to strength, the strongest to 12 inches or 18 inches and the weakest to two or three eyes. It is essential to remember that all climbing Roses, whatever their class or tribe, flower best from well-ripened, one year old wood. That grand old Rose, Climbing Devonensis, is very impatient of being pruned. It is far better

to tie its shoots over in an arch-like manner. When planting such Roses, space should always be allowed for them to be trained out horizontally, more like a fruit tree. If this is done, the growths produce plenty of laterals, and if these are shortened to three or four eyes, then we obtain a fine crop of flowers.

Now I would say a word or two about unorthodox pruning. In a collection of Roses that once came under my notice, the owner changed gardeners, and the incoming gardener was one of those who believed in very moderate pruning. Well, the result was that sorts like General Macarthur and Joseph Hill were left practically untouched, and the owner had a glorious mass of bloom. But the Roses had been hard pruned the previous year; consequently most of the wood was one year old. Now, this was all very well for the one year; but how about next year? Why, there was comparatively little basal growth until very late in the year, and consequently it was very unripe, so that the next year the crop of bloom was very inferior.

Pruning First Season after Planting.—It is a severe trial to many amateurs to cut back their Roses nearly to the ground, but this should be done with all save very vigorous sorts, and even they are best pruned to 9 inches or 12 inches. Prune climbing Roses of the Tea and Hybrid Tea class to about two feet, save one or two exceptions. These would be the least vigorous, such as Climbing Mrs. Grant, Ards Rover, &c. I advise leaving these 4 feet to 5 feet long. If pruned to 12 inches they often fail to make long growths for some time. Ramblers of the Wichuraiana class need not be pruned much, but the Multiflora section are best cut back to about twelve inches.

Weeping Roses the First Year.—Prune the Multifloras back to 3 inches or 4 inches, but the Wichuraianas leave alone until after flowering; then cut away to their base nearly all the growths that have bloomed. This should be done in July, if possible, so as to ensure good long growths appearing before late autumn, as these long growths provide us with the crop of bloom next year.

DANECROFT.

SOME BEAUTIFUL BERBERIS HYBRIDS.

AMONG the many shrubs which flower abundantly in spring, none is appreciated more than the Barberry known as Berberis stenophylla. In addition to its flowering character, the narrow, rich green leaves are retained through the winter, and these, together with its drooping growth, render it ornamental at any time of the year. In the flowering season each slender branch is clothed with rich golden yellow flowers, and may be likened to an arched streamer of golden bells. Such a useful shrub as this has naturally received attention from the hybridist, with the result that there are several distinct forms of it obtainable. The most beautiful of all is that known as corallina, a name it derives from the colour of the flower-buds. These are a decided coral red, or in some instances scarlet, and, although the flowers are yellow when fully expanded, much of this colour of the buds is retained. The variety gracilis is worthy of attention, owing to its habit of producing flowers in autumn as well as in spring. Erecta is a small, upright-growing variety with pale green, spiny leaves. Irwinii is another dwarf variety, the rather arching stems growing closely one above the other. H.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Early Fig Trees in Pots.—The trees which were started into growth in December will soon be ripening their fruits. They will need plenty of stimulants from now till the fruits actually begin to ripen. A surface-dressing of rich farm-yard manure will also be of considerable benefit. The temperature at night may be kept about 60°, unless the weather is very mild, when 5° more may be allowed. Attend to the stopping and regulating of young growths, and see that the shoots are sufficiently thinned so that light and air may reach the fruits. When the fruits commence to ripen, discontinue syringing and keep the atmosphere on the dry side.

Fig Trees in Borders.—Old-established trees growing in shallow, restricted borders must be liberally treated if they are carrying full crops of fruit. If there are plenty of roots on the surface of the border, there is nothing better than a mulch of rich cow or horse manure to assist the final maturing of the fruit. This should be put on just prior to watering. Stop the shoots at the fourth or fifth leaf, and thin them out where they are too thick. Unfruitful wood may be cut hard back to encourage fresh growth at the base. Syringe the foliage vigorously twice daily, and damp the floors several times a day.

Plants Under Glass.

Plumbago rosea.—Cuttings of this beautiful stove flowering plant may be inserted now. They will root readily in a light sandy compost. Plunge the pots in the propagating-frame. During the season of growth the plants will require stopping two or three times to encourage a bushy habit. Some of the old plants may be repotted and grown on to make large specimens.

Ferns.—Now is a suitable time to repot those plants which are in need of it. Large specimens will thrive for several years in the same pots if they are given proper attention in regard to watering. All old fronds may be cut off, and, after repotting or top-dressing, place the plants in a warm, moist house. A suitable compost may be made of loam and peat in equal parts, leaf-mould, crushed charcoal and sand.

Forced Shrubs.—As these pass out of bloom, remove all dead flowers and prune those shrubs which need it. Lilacs may be cut well back and placed in a cool house for a week or two before planting them out. *Prunus triloba* is an excellent plant for forcing. After blooming, the old flowering wood may be cut back hard to induce the plants to make fresh flowering shoots. Azaleas may be repotted and placed in a warm house to complete their growth.

Heliotropes.—Cuttings rooted now will make nice plants for summer flowering. Young shoots taken from the old plants will readily root in pots or pans filled with a light sandy compost. Keep the young plants growing in a warm, moist house, and stop them occasionally to induce a bushy habit.

The Flower Garden.

Gladioli.—Where these are required for cutting, they may be planted now. Those required for planting with other subjects must be potted up and placed in a cold frame.

Marguerite Carnations.—The continuous flowering of these beautiful annual Carnations makes them invaluable for the flower garden. The plants must, however, be liberally treated, or they will prove disappointing. When the seedlings are large enough, pot them into 3-inch pots and keep them growing in a warm pit near to the glass. Afterwards harden them off in a cold frame.

Spring-Flowering Plants.—After the continuous heavy rains the soil between the plants will require to be stirred with the hoe; but this must only be done when the ground is dry. Herbaceous borders may be treated in the same manner. Where Tulips and other bulbs are growing in grass, the rank grass should be carefully cut with the shears, or it may smother the flowers.

The Hardy Fruit Garden.

Grafting.—Trees which were headed back a few weeks ago in preparation for grafting will

now be in proper condition for the operation. Rind or cleft grafting is the method usually adopted for established trees.

Strawberries.—Old plantations will benefit by dressings of well-seasoned soot being applied during showery weather. Keep the ground free from weeds and remove dead leaves from the plants. If a new plantation is contemplated, the sooner it is done the better. A new plantation should be made every year for the purpose of supplying runners.

Autumn or Perpetual Strawberries.—Seeds may now be sown for raising plants to fruit in the autumn. Sow thinly in boxes and place them in a warm house. Keep the young plants growing near to the glass, pricking out the seedlings into boxes when large enough. The young plants should be ready to put out early in May.

The Kitchen Garden.

Vegetable Marrows.—A sowing of these useful vegetables may be made now for planting in frames. Sow the seeds singly in 3-inch pots and place them in warmth to germinate.

Mint.—It is a good plan to lift and replant a portion of the bed every season. Dig into the ground some well-rotted manure and soot, and see that it is well cleared of weeds. Put out the young plants in rows about a foot apart.

Tarragon.—This should also be lifted every season, and if the ground is inclined to stiffness, a quantity of well-rotted leaf-soil should be dug into it. Carefully pull the old plants to pieces, and plant only the most promising portions in rows 18 inches apart.

Chervil.—A small sowing of this should be made monthly on a border which is not too much exposed to the sun.

Basil.—This valuable herb requires to be grown under glass. Sow in pans, and prick out the seedlings into 6-inch pots filled with a rich compost.

E. HARRISS.

(Head-gardener to Lady Wantage.)
Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

The Flower Garden.

Antirrhinums.—Any varieties which have been propagated from cuttings will now be ready for removing outdoors to some sheltered border, where they will remain until needed for bedding. Treat them in the same manner as Pentstemons. Young seedlings raised from seed sown during January should now be pricked out 3 inches apart in cold frames, keeping the frames shut until they recover from the check of removal. A slight shade during bright sunshine will also be of great help to them for the first few days.

Verbenas are easily grown from seed if sown now. They may also be propagated from cuttings, which root very readily with bottom-heat. As Verbenas, particularly some of the named varieties, are very subject to mildew while growing indoors, means must be used to prevent this.

Nicotiana.—Both the *Sanderæ* hybrids and the sweet-scented affinis should be sown now. If possible, pot up singly when the plants are large enough to handle.

Calceolarias.—Where space will allow, these should all be lifted and replanted in frames at a greater distance apart than when they were put in as cuttings. Add a quantity of leaf-mould and sand to encourage free rooting with a view to getting good plants for setting out in May.

The Rock Garden.—Now that most of the plants are beginning to grow, an opportunity should be taken to overhaul this garden, restricting some of the freer-growing subjects to prevent them overgrowing the small and more shy growers. Blanks ought to be made good, and the more tender subjects which have been wintered in frames may be got into their proper positions. Plants such as some of the *Primulas* are apt to become leggy, and these derive benefit from a top-dressing. Then there are usually parts of the rockery which have become washed bare of soil. This should be replaced and a general tidying up given.

The Kitchen Garden.

Early Peas.—The Peas which were sown indoors some time ago and have recently been growing in cold frames must now be got into their permanent positions, taking care that the site is well screened from north and east winds and yet receiving the full benefit of the sun. Whether the variety is tall or dwarf, the plants should be given the protection of some Spruce twigs or branches of a similar type.

Autumn-Sown Cauliflowers.—Now that the plants have been hardened off by the entire removal of the lights, it is safe to plant out. As a number may possibly button or bolt, they could be planted rather more closely than the late crop. As a safe protection against slugs, dust the soil immediately around the plants with soot. Early Erfurt is a reliable variety which matures quickly.

Globe Artichokes.—The protecting material should now be removed, a dressing of manure given, and the ground forked over. It is rather early yet to transplant, but where a new plantation is to be made, the ground must be got ready.

Broad Beans that were sown in boxes indoors must now be planted out. As the plants are naturally not so stiff and sturdy as those sown outdoors, they should receive some support as well as ample shelter, so as to give them a good start.

Jerusalem Artichokes.—These will grow on for years unheeded or untouched if the soil is fairly rich; but to get the best tubers a new plantation should be made each year. If the ground has been dug or trenched and manure added, they can be planted at once 18 inches apart, and 3 feet 6 inches to 4 feet between the lines.

Fruit Under Glass.

Melons.—The temperature in the Melon pits or houses must be well maintained. On no account must it be allowed to drop below 65° during the night-time. The atmosphere must be kept humid, closing the ventilators early in the afternoon so as to conserve as much sun-heat as possible. The plants should have the leading growths stopped when they are about two feet in length. Most varieties will be found to set more freely on sublaterals than on the first breaks.

Early Peaches and Nectarines.—The longest growths will be in need of tying, and should be attended to before they become too large. If the disbudding has not been sufficient, a few more growths may be cut out altogether, so that there may be no undue overcrowding. As the fruits are swelling, the chief thinning ought to take place, leaving, when possible, the fruits which are best placed above the wires. The heaviest and best quality fruit is obtained by severe thinning.

Plants Under Glass.

Summer-Flowering Zonal Pelargoniums should now be placed in their flowering pots. In all cases it is wise to restrict their rootrun by confining them to small pots, as they flower with far greater freedom in these than would be the case if given more room.

Stove Plants.—The potting of most stove plants ought by this date to have been nearly completed. Any arrears of this work should be attended to before growth is any further advanced. Pay close attention to shading and ply the syringe frequently, closing the houses early in the afternoon to secure all the sun-heat possible.

Malmaison Carnations.—Plants which were potted into 6-inch pots during October are now ready for shifting into 9-inch and 10-inch ones. For preference select plants which have been watered the previous day. The soil should be left rather rough, and must contain a large proportion of porous material, such as small charcoal, crushed brick and calcined oyster-shell. Also include clean leaf-mould with silver sand, and if wireworms or eelworms are troublesome, a small quantity of some soil fumigant may with safety be included during the soil preparation. If the potting compost is of the right texture, it will almost be impossible to pot too firmly. Malmaisons do not like moisture actually on the foliage, but constant syringing between the pots of newly potted plants is beneficial, except during very damp and dull days, when a drier atmosphere is best.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

Offices: 20, Tavistock Street, Covent Garden, W.C.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

SPARAXIS PULCHERRIMA (*Antrim*).—This charming plant will be quite at home in any fairly open position sheltered from north and east. The soil should be made up of loam, peat, leaf-mould and sand in about equal parts, adding a fourth part of very old finely sifted manure. It would be best to prepare a special bed for it, with not less than a foot deep of the soil mixture—better if 1½ feet—resting on a well-drained bottom. Moisture is of some importance during growth, and this it should not lack. In favoured places—for example, Guernsey and the Isle of Wight—the plant does well in rich, deep sandy loam; hence a warm position is something to aim at. The eighteen months old seedlings could be transplanted with impunity, though it would be best to get them into their permanent places during the present month.

ERIGERON QUAKERESS (*C. G. B.*).—The behaviour of your plant is very unusual, and we are somewhat at a loss to account for it, more particularly as the other species named does so well. As a rule, both flower freely and profusely in the majority of sandy and loamy soils, that named above frequently continuing till frost arrives. Obviously, some local influence, of which we have no knowledge, is affecting it. Should there exist lack of vigour of the individual crowns, it would be well to divide the plant freely in March, affording the divisions a richer soil when replanting. You say the plant "spreads about," and as its growth is more or less tufted, we wonder whether you have the true plant. If you have, we see nothing but lack of vigour to account for your non-success.

YELLOW-FLOWERED AQUATIC (*B. H. Lyne*).—If the plant referred to was small habited, we should conclude it to be *Villarsia nymphaeoides*, which would do moderately well in a tub of, say, 1½ feet to 2 feet deep, with 6 inches or so of loam and cow-manure to feed upon. The *Myosotis* is one of the most miniature growing of the alpine species, and prefers gritty loam in rocky crevices. It is one of those difficult subjects likely to be best suited in the moraine. The *Erpetion*—now known as *Viola hederacea* or the New Holland Violet—is an Australian species of doubtful hardness, though in your district it may succeed. The plant grows quite freely in loam, peat and sand in equal parts, and prefers a rather cool position. Planted out in a frame it rarely fails. You do not say where or how you have grown the *Soldanella*. Grow the plant in loam and peat, with ample moisture throughout its growing season. Drought is doom to it so far as its flowering is concerned. Try *Gentiana acaulis* in a more loamy soil freely charged with old mortar rubble or sandstone chippings. It should be very firmly planted, and right up to the base of its leaves. The plant prefers a deep and cool rootrun.

DELPHINIUMS IN SHADE (*A. E. A.*).—These plants among the Roses are somewhat out of place, as much by reason of growth when established as the conflicting nature

of their colours when in bloom. In the shaded position referred to they are not, if removed thither, likely to prove a permanent success, though they might do for a time. Much depends, however, upon the nature of the shade, and distant tree shade would be much less harmful than cold, uncongenial shade, the product of near-by buildings or high walls. Of these things you will be the better judge on the spot. For the moving and transplanting, March is quite good, though big clumps of these planted intact are rarely a success. In other words, when the clumps are large, dividing and replanting should go hand in hand.

TREES AND SHRUBS.

NAMES AND TREATMENT OF SHRUBS (*Mrs. Lönemann*).—The purple-berried shrub is the Coral-berry (*Symphoricarpos orbiculatus*), native of the Eastern United States. It can be pruned back fairly severely at the present time. The other plant is *Cupressus lawsoniana* var. *albo-spica*. It is never a very satisfactory subject, and is hardly worth growing. The white patches are really evidence of ill-health, although the condition has been perpetuated by propagation. Such patches frequently die and give the plant a very shabby appearance. Nothing can be done to counteract the ill-effect of the white patches.

SHRUBS FOR BANK (*F. J. Jackson*).—There are several shrubs which could be used for clothing the bank beneath your window. The hardier Heaths could be used with advantage, especially *Erica mediterranea* hybrid. It grows 12 inches to 18 inches high, and spreads rapidly. The flowering-time extends from December to May. *Hypericum calycinum*, 12 inches high, forms a dense carpet of evergreen leaves, and flowers freely during the summer. It should be cut to the ground-line each March. The flowers are yellow and 2½ inches to 3 inches across. *Cotoneaster microphylla* is a spreading evergreen bush 12 inches to 18 inches high, which bears white flowers in May and red fruits in the autumn. *Cotoneaster horizontalis*, 1½ feet to 2 feet high, is deciduous, and is most attractive in the autumn when bearing scarlet fruits and red and orange foliage. Common Ivy would also make a good evergreen covering, but, of course, there would be no flowers. Sun Roses or *Helianthemum* in variety would also be successful. They bloom freely during May and June. Whichever of these plants is chosen, it should be used alone rather than in mixture. If the existing shrubs are attractive kinds, there is no reason for their removal, as any of the subjects recommended would work in well with them.

LILACS FROM CUTTINGS (*Lil. Ak, Aber*).—You will find that Lilacs are not very easily or quickly raised from cuttings. Cuttings can, however, be rooted both in the summer and winter. In the former case, short, half-ripe shoots 4 inches to 6 inches long are taken in July or early August, and are inserted in pots of light soil in a close propagating-case. In the other instance, cuttings 12 inches long are made of fully ripened wood as soon as the leaves fall in the autumn. They are planted in a sheltered border out of doors, covering all except the upper 3 inches of each cutting in the soil and making the soil about them quite firm. But an easier method of propagation is to layer the lower branches into light soil during February or March. These will take root during the summer and form plants more quickly than others raised from cuttings. The Lilac is not a very suitable shrub for planting in the way you describe to form a covered walk. It is inclined to grow very densely from the bottom, and the effect would be rather stiff unless you dispense with training and allow the plants to grow naturally, thus simply lining the walk with bushes. The common Lime is often used for covering walks in the way you describe, but Beech, Hornbeam and Hazel are also chosen. It is not usual to plant a border between the bushes or trees of a pleached walk and the path. If anything is used, however, it should be some spring-flowering bulb or something that will withstand considerable drought and shade.

THE GREENHOUSE.

CULTIVATION OF GERBERAS (*G. H.*).—When Gerberas are raised from seeds, they are very liable to go off during their earlier stages; but, once they become established, little trouble is then experienced in this respect. The main roots of the Gerberas are of a deep descending nature, with comparatively few fibres, for which reason they grow more freely when planted out in a sheltered border—as in the front of the Orchid-house at Kew—than they do in pots. Your plants are certainly flowering very early, which would seem to indicate that they have been kept warmer than they really require. The greatest measure of success under pot culture is attained when the plants are kept during the winter in a structure where a temperature of 45° to 55° is maintained. At that season overwatering must be strictly guarded against. Under these conditions the plants will partially rest. Then, on the return of spring, any that need it should be repotted in a mixture of loam, leaf-mould and sand. With a natural increase in temperature and in the supply of water, the plants will soon grow and in time flower. Good examples may be grown in pots 5 inches in diameter. Throughout the summer they may be grown in a greenhouse without any artificial heat, or in a frame. While they may be shaded during the hottest part of the day, exposure to a fair amount of sunshine is very necessary to their well-doing. When the pots are furnished with roots, an occasional stimulant during the growing season will be helpful. On the approach of autumn frosts they must be taken into the greenhouse.

In the case of your plants that are now flowering, we advise you, as soon as the blossoms are over, to cut off the old flower-spikes and repot the plants in a compost as before advised. In repotting, as much of the old soil should be taken away as can be done without unduly distressing the roots. Will you please send us a diseased portion of one of your *Amaryllids*?

MISCELLANEOUS.

VARIOUS QUESTIONS (*L. B. W.*).—The names York and Lancaster belong to one Rose. It could be obtained from Messrs. H. Merryweather and Sons, Southwell Notts, or Messrs. Alex. Dickson and Sons, Newtownards County Down, Ireland. *Rosa Mundi* is sometimes erroneously termed York and Lancaster. The names York and Lancaster are without botanical significance, and apply to an individual variety in the same way as *La France* and *Gloire de Dijon* apply to other well-known garden Roses. *Rosa* is the generic name of the Rose family, but it is not used for varieties which have been raised artificially in our gardens, and applies to the wild species only. The *Hen and Chickens Daisy* is botanically known as *Bellis perennis prolifera*, and is so called because of the nature of its flowering, small flower-heads issuing from and encircling the larger central flower-head. The variety is more curious than beautiful. Try Messrs. Barr and Sons, King Street, Covent Garden, London, W.C., for either plants or seeds. Seeds of the *Digitalis* you mention can be obtained from Messrs. Pennell and Sons, Lincoln.

WEEDS ON LAWN (*Constant*).—If you allow the grass on your lawn to grow to a height of 6 inches or 8 inches before being cut, you will encourage the weeds to produce and shed seeds, thereby spreading instead of destroying the weeds. It is advisable to hand-weed as far as possible; then give a sowing of lawn sand.

NAMES OF PLANTS.—(*T. T.*).—*Leucojum vernum*, the Spring Snowflake.—*Greyhound*.—*Herniaria glabra*.—*T. P.*—1, *Pinus insignis*; 2, *Quercus Ilex* (Evergreen Oak). The Blackthorn may be successfully used as a hedge.

THE EDITOR'S TABLE.

An Interesting Hyacinth.—Messrs. Barr and Sons of King Street, Covent Garden, London, W.C., send us a plant of Hyacinth Lady Derby. The bulb had been specially treated so as to induce it to form a number of flower-spikes, which are infinitely more graceful than the large, massive spikes obtained from untreated bulbs. Messrs. Barr write: "We have much pleasure in sending you a pot of the many-flowered Hyacinth Lady Derby. These many-flowered Hyacinths are, of course, as yet a novelty in this country, the numerous elegantly set spikes being produced by means of special treatment of the bulbs in their younger state. These Hyacinths can now be had in five distinct colours, and, the price of the bulbs being quite moderate, they are within the reach of all. As you will see, the pot contains only the one bulb, from which six spikes have been thrown."

SOCIETIES.

DUMFRIES AND GALLOWAY GARDENERS' ASSOCIATION.

THE usual fortnightly meeting of the above association was held in the Wesley Hall, Dumfries, on the evening of March 6, Mr. S. Arnott (chairman) presiding. A short discussion arose on the subject of the best herbaceous plants for early August bloom—a question held over from the last meeting—and some useful information was given. Mr. J. B. Crichton, Kirmount Gardens, in response to a request, gave some further useful information respecting his method of cultivating Potatoes in the open for use in February. The chairman then called upon Mr. Esson, Drumlanrig Castle Gardens, to give his paper on "Present-day Gardening." This interesting and extensive subject Mr. Esson dealt with very fully and ably. He pointed out the difference between gardening in former and in present times, and emphasised the varied requirements of the gardens of to-day. He discussed the large garden, or rather gardens, which afforded scope for much diversity, and spoke of bedding-out, herbaceous borders, the Rose garden, the wild garden, the shrubbery and the rock garden, giving many hints as to the best practice in these different branches. Mr. Esson then dealt with smaller gardens, strongly expressing his views in favour of individuality, and deploring the sameness shown by so many small gardens. An interesting discussion took place, during the course of which Mr. Esson was complimented on his excellent paper. On the motion of the chairman, he was heartily thanked.

THE GARDEN.

No. 2262.—VOL. LXXIX.

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NOTES OF THE WEEK.

The Mezereon.—The free-flowering qualities of the old and well-known shrub *Daphne Mezereum* warrant it a place in every garden, for it is suitable for those of large and small area, some of the finest specimens being met with in cottage gardens. Cottagers in South Lancashire appear to be very fond of it, for fine examples are often seen in their gardens, possibly by reason of its being so easily moved from garden to garden by means of seeds or tiny plants, and after it has once been planted being left severely alone. It is one of those plants that rejoices in cool, moist soil, and usually gives the best results when sheltered from very hot sun. Several varieties are supplied by nurserymen in addition to the ordinary red-flowered kind. The two best are *grandiflorum*, a tree-flowering variety with red flowers, which open during December and January; and *album*, a white-flowered form which blooms during February or March. The former, like the latter, produces rich red berries in June, and the latter bears yellow berries.

Two Beautiful Early Flowering Trees.—How beautiful *Cornus Mas* and *Parrotia persica* are just now with their masses of blooms! The other day we saw a large bowl with some cut sprays of them mixed with sprays of *Alexandrian Laurel* (*Danæa*

aurus). The bright yellow flowers of the Cornelian Cherry made a pleasing contrast to the Parrotia, with its conspicuous rich red stamens, while the graceful sprays of *Danæa* added just the finish required.

A Charming Golden Shrub.—Few evergreen shrubs are as bright and attractive as *Cassinia ulvida*. It is a low-growing, branching bush, covered with tiny leaves, which are powdered on their under surface, so that the bush has a golden hue at all seasons. The flowers are very small, but borne in large clusters terminating the shoots.

It is a good subject for a dry, warm bank, and in such a position the colouring is most attractive, especially just now, as the young growth is pushing forth. It is a native of New Zealand and sometimes listed under the name of *Diplopappus chrysophylla*.

The Chinese Davidia.—On the plant of *Davidia involucrata* *Vilmorinii* in the Himalayan House at Kew two fruits are approaching maturity. We believe this is the first time a tree has borne fruits in this country. They

from 1904 until the present time has continued to produce new fronds, and appears to be in a perfectly healthy condition. Copies of the *Gazette*, containing full particulars of this interesting experiment, can be obtained from Mr. Druery, 11, Shaa Road, Acton, London, W.

Forget-me-not Day in London.—We understand that a movement is on foot to sell sprays of Forget-me-not in London on May 1 in aid of disabled sailors and soldiers. We are

pleased to note that it is the intention of the originators of the scheme to sell, as far as possible, natural flowers, as by so doing those whose business it is to grow cut flowers will be assisted, as well as those who have been broken in war. After all, artificial flowers at their best are but caricatures of those culled from Nature.

The Dahlia Year Book.—The committee of the National Dahlia Society is to be congratulated on publishing its Year Book during the present crisis. The many interesting and instructive articles that it contains should prove of considerable interest and assistance to those who, more or less successfully, attempt to grow these autumn flowers. Mr. C. Harman Payne gives some very interesting particulars



FLOWERING SHOOT OF *DAVIDIA INVOLUCRATA*. A TREE IS FRUITING IN THE TEMPERATE HOUSE AT KEW.

are solitary, about the size and shape of a Walnut, green, with a glaucous bloom, and slightly grooved. Each fruit contains only one nut.

Ferns in Air-Tight Bottles.—In the March issue of the *British Fern Gazette* the editor, Mr. C. T. Druery, gives some interesting particulars of a Hart's-tongue Fern that he has had in a hermetically sealed glass pickle jar for ten years. Originally placed in the jar, with a little wet, washed sand in the bottom, when a minute plant bearing a solitary, tiny frond, the plant in the course of a year or two reached the stopper, and

on the evolution of the Dahlia as a show flower, and park superintendents and gardeners generally would do well to study Mr. Cheal's remarks concerning the Dahlia as a decorative plant for parks and gardens. The Year Book is splendidly printed and bound, but some of the portraits of Dahlia enthusiasts might have been of a more recent date. The hon. secretary of the National Dahlia Society is Mr. J. B. Riding, Forest Side, Chingford, London, from whom, we presume, copies of the Year Book can be obtained.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Trees for Screens.—In the interesting article on this subject in your issue for March 6, page 119, certain shrubs were mentioned for growing under large trees. I should like to add to these *Abies nordmanniana*. Since I saw this some years ago growing in dense woods at Les Barres, I have planted it in similar situations, and with great success. For those to whom *Aucubas* are as red rags to bulls, I recommend the restful green of Nordmann's Fir.—E. A. BUNYARD.

Saxifraga lilacina.—One of the most striking and most beautiful Saxifrages in flower at the present time is *Saxifraga lilacina*. When yards away from this minute gem, one finds one's self hurrying towards it to examine at close range its large, lilac purple flowers, which are borne in great profusion on hairy stems half an inch to an inch high. To further enhance the effect, the petals are reflexed, and show off to great advantage the gold-tipped purple stamens. Of creeping habit, *S. lilacina* has very minute, lime-tipped leaves, produced closely together, giving the plant the appearance of little mats of silvery grey. It is a native of the Himalayas, and is thriving here in a gritty compost.—JOHN G. BROADHEAD, Wooldale, Thongs Bridge, Huddersfield.

Home-Grown Vegetables and Our Food Supply.—Referring to your kind enquiry of February 11, I have placed the matter before the committee of this society, and, after fully considering the matter, they were unanimously of the opinion that we ought to do all in our power to further your praiseworthy efforts. The steps we have decided to take to this end are as follow: To issue a circular-letter to all the members of the society and to the residents in the neighbourhood pointing out the necessity of cultivating as many vegetables as possible this year, and inviting any who would like to cultivate a small plot of land to send their names in to me with a view to our endeavouring to secure some of the land lying idle in this neighbourhood for their benefit. As it would be impossible for me to embody the whole of the different aspects of the case, in my opinion, in a circular-letter, I have ventured to write them out more fully with a view to insertion in our local paper; but a member of our committee, to whom I have shown the accompanying article, suggested that it would be productive of more good if inserted in a paper like THE GARDEN, and for this reason I forward it to you.—ERNEST C. CROSS, Hon. Secretary, Hale End Horticultural Society. [The article referred to by Mr. Cross appears on page 155.—ED.]

— I am pleased to say that we have decided to continue our society during the present year, as the importance of such work is very necessary at the present time in stimulating interest among all cultivators of the soil to bring every available plot into use. It may be necessary to curtail expense on the present occasion, but this should be everyone's aim in such a great national crisis.

You will be pleased to hear that your article greatly helped to influence the foregoing decision.—J. L. WRIGHT, Hon. Secretary, Wharfedale Silkestone Floral and Horticultural Society.

Undesirables in the Rock Garden.—"E. H. J." has rendered a great service in calling your readers' attention to undesirable plants for the rock garden, as it is quite as necessary for beginners to know what not to plant as to know what to make a start with. I cordially agree with his list, the worst of which I have found to be *Euphorbia Cyparissias*. Being smitten with the pretty appearance of this plant, I introduced it in my alpine garden, and I have regretted it ever since, as do what I will I have so far been unable to eradicate the wretch. A few years since, while walking along a road near Termignon (in the



A HOME-MADE RUSTIC HURDLE. THESE ARE VERY USEFUL FOR WIND SCREENS.

company of a well-known and greatly respected horticulturist), we espied, a little way off, a patch of glorious blue, which on closer approach we found to be *Ajuga genevensis*. Attracted by its brilliant colour, I dug up some of it, and in due course installed it with pride here. I lived in joyous expectation of seeing it flower the next year. It did so, but what a falling off was there! It came a dingy, dowdy blue; but great as was that disappointment, it was nothing to what was to follow. The fiend began to run underground, and soon appeared yards away from where I had planted it, so that I had to lift rocks which it had undermined. Times out of number I had to dig up pieces of it, so, fellow rock gardeners, beware of this siren. "E. T. E." sings the praises of *Cerastium tomentosum*, a plant which

is out of place in a garden of choice alpinists, which all true alpinists seek to grow. Fancy cutting alpine plants back twice a year as though they were some subject in a topiary garden! "E. T. E." condemns himself. The proper province of *Cerastium tomentosum* is that of an edging plant in borders, and even then it needs close watching. It surprises me to see Mr. G. R. Phipps writing that "in some rock gardens where there are spaces beneath the trees which have to be covered," &c. Without desiring to claim great knowledge, I have understood hitherto that no rock garden should be even near a tree, much less have one in it. What about drip, which is fatal to alpinists and injurious even to plants in borders; and what about the roots of trees, not to mention shade? Some people must have curious ideas about rock gardens. They surely have never seen the Alps, nor have read books on the construction of rock gardens. May I refer your correspondent to page 1 of "The Small Rock Garden," published by Country Life, Limited, and the illustration facing the title page? No trees there! With me *Zauschneria californica*, planted in full sun, is far from a ramper; but is this an alpine? Mr. William Robinson rightly describes it as a perennial, meaning a border plant, which it really is. Arabises, Aubrietias and *Helianthemums* are not an unmixed blessing in an alpine garden by reason of their rampageousness. As one cannot well do without them, I am treating them as unfavoured pictures at the Royal Academy are treated, viz., skying them. Raised feet above their smaller brethren, they in their season produce glorious cascades of colour.—ALPINIST. [The sentence in "The Small Rock Garden," by Mr. E. H. Jenkins, referred to by "Alpinist," is as follows: "The best position for a rock garden is one entirely in the open, a position removed from the presence or near proximity of large trees, equally prejudicial to success by reason of their rootspread and the shade or drip consequent upon their overhanging branches."—ED.]

Wattle Hurdles for Shelter.—The illustration represents a form of wattle hurdle most useful for protecting shrub and tender plants from cold winds, especially in early spring. These hurdles are largely used by the seaside, where north and easterly winds have a deterrent effect upon the growth of so many plants and evergreens. This is an industry I have started on this estate, employing much labour in the woods in cutting down and converting the underwood, which grows so freely in this part of Hampshire, into hurdles. Hazel is the principal wood from which the hurdles are made, although Ash, Maple and wild Cherry are also used. The hurdles are 6 feet long, 3 feet high and closely woven. The "rods," as they are termed, are split, and thus made more pliable. They are easily wound around the end, although it is a knack belonging to the experts at the work, which requires considerable practice. In some parts the hurdles are used for road-making across swamps and building up the banks of water-courses. I find them especially valuable for many uses on an estate.—E. MOLYNEUX, Swanmore, Hants.

Narcissus pallidus præcox.—My attention was attracted by a note on this early Pyrenean Daffodil in your issue of March 13. A long bank of it here is now a perfect picture. Last year the first flowers opened at the end of January. This year they were exactly a month later. You mention that it is a difficult plant to increase, and that in some places it actually deteriorates. But in an experience of pallidus præcox extending over fifteen years, I must confess to having found it one of the most prolific plants of its kind in my garden. It must be understood that I am speaking of its increase from seeds, not from offsets. Among the species and varieties of the Narcissus grown here (and there are some hundreds of them) pallidus præcox is the most plentiful and the most consistent seeder of all. It is growing here on a rough hedge bank, and up till two years ago I allowed it to ripen and shed its seeds *in situ*. For the last two seasons I have taken pains to watch and gather the pods, and the seeds have been sown outdoors in rows in little nursery beds. As a result I have now many thousands of healthy seedlings. It has been well worth the trouble, for in a year or two I ought to have a fine quantity of good flowering bulbs of what is now, I understand, becoming an increasingly scarce plant.—ORNATUS, Rye.

Daffodil or Narcissus?—The section to which the name of Daffodil with its variants was applied was the one to which the Primrose Peerless and Poet's Narcissus belong. Lyte thought these and the Pseudo were distinct genera, and remarks that this was called "Pseudo-narcissus because his flowers are somewhat like to Narcissus: in English, Crowbels." Gerard calls the first "Narcisse"—a very good name too—in a translation from Theocritus:

"But when the Girls were come into
The medowes flouring all in sight,
That Wench with these, this Wench with those
Trim floures, themselves did all delight:
She with the Narcisse good in sent,
And she with Hyacinthes content."

"Daffodilly," "Daffodowndilly" and "Primerose Peerlesse" are other of Gerard's names. "Laus Deo" is in Tusser's list of plants for this, and we know from Turner's "Libellus" that this was a common name in Essex for this flower. "Cencliffe" is a very old name for the Pseudo or Bastard Daffodil, and besides these there are also a large number of local names applied to both and to particular species, e.g., "Sweet Nancy" to the late double white. It may be permissible to make a note here of Mistletoe being used in churches at Christmastide, which the Rev. J. Jacob, in quoting lines from Gay's "Trivia," seems doubtful about. But an old custom at York was that of decking the altar of the Cathedral on Christmas Eve with Mistletoe, and I have read somewhere that it was customary to employ Mistletoe in churches for the same purpose as in private houses.—R. P. BROTHERSTON.

What is a Daffodil?—What is a Narcissus? What is a Daffodil? are questions asked and answered by the Rev. J. Jacob in THE GARDEN of March 6. The names are absolutely convertible, Mr. Jacob thinks. John Dicks called them all Narcissus in 1771, and "so it has continued up to the present time." But is it not a curious thing that, if the matter is as simple as Mr. Jacob supposes, there should have been up to the present time a more or less general belief among Daffodil-mongers, as well as among the profane, that a Narcissus

is not necessarily a Daffodil? Language is a freakish old person; but there is one thing in which she is notoriously consistent, and that is her regard for economy. None of her words has a sinecure. If they do not work, neither shall they live. If I know anything of Language and her ways, I should say it is extremely unlikely that she has allowed two words to discharge exactly the same functions from the time of Charles I. till now. I really think Mr. Jacob must reconsider this matter, and allow due weight to current usage. Perhaps I may be allowed to state what I have always understood to be the ground covered by the two words. Unfortunately, not being near a reference library, I cannot quote authorities; but I have been a good deal occupied with the Narcissus and its literature all my life, and therefore venture to state what I have always supposed to be the scope of the words. "Narcissus," I take it, then, is the generic word, and covers the whole tribe, regardless of form. "Daffodil," on the other hand, was a name in general use for certain yellow forms of Narcissus which were common in Old English gardens, viz., the Lent Lily (N. Pseudonarcissus), the Peerless Narcissus (N. incomparabilis), single and double, and the Hoop Petticoat (Corbularia). The Polyanthus Narcissus (Tazetta) was not (and possibly still is not) a common flower of English gardens, but rather a Dutch florist's flower. The Narcissus by pre-eminence was that which was believed, with or without sufficient grounds, to be the Narcissus of the Greek and Latin poets—the Narcissus poetarum (less correctly "Narcissus Poeticus"). The Jonquil (or Rush-kin) is another form of Narcissus, which I can hardly think an English cottager of a previous generation would have dreamed of calling "Daffodil." N. Poeticus recurvus, the form of Poeticus which was probably most plentiful in the old gardens, he might style "Narcissus," though I doubt it, Narcissus being rather the comprehensive term used by those who have written about these flowers; he would probably speak of it as the "Pheasant's-eye," and a very good name too. After all, in the matter of English plant names the cottager is an authority not to be despised; and I should think he would be just as likely, or as little likely, to speak of a Jonquil or Pheasant's-eye as a Daffodil as he would be to call a China Aster a Michaelmas Daisy. To sum up, may I ask Mr. Jacob whether it is now permitted to call a Pheasant's-eye Narcissus a "Poetic Daffodil"? To be forewarned will obviate the danger of shock. It has just occurred to me to consult the only authority that is accessible to me on this point, viz., Webster's International Dictionary, and this is what I find: "Daffodil—a plant of the genus Narcissus (N. Pseudonarcissus). It has a bulbous root and beautiful flowers, usually of a yellow hue." I had something to say also on the subject of alternative names for Daffodils and other Narcissi, but that must keep for another time.—SOMERSET.

FORTHCOMING EVENT.

March 29.—At Rawdon, near Leeds, in the Conservative Club, in aid of local Red Cross work, Mrs. Duggan of Clevedon, Altrincham, will lecture on "Bulbous Plants for the Garden, with Special Reference to Daffodils and Lilies." Lantern slides and a collection of cut Daffodil blooms in variety will be shown. Mrs. Duggan will be glad to repeat this lecture elsewhere in aid of any of the war charities.

COLOUR CHARTS: WHAT IS WANTED.

THE interesting article by the Rev. Joseph Jacob in THE GARDEN of March 6 again opens up the question of a proper, definite and much-needed standardisation of colours applicable to floral descriptions. I am afraid, however, none of his suggestions is likely to achieve much more satisfactory conditions than obtain already.

Mr. Jacob begins by criticising the descriptions given in nurserymen's catalogues, and although he realises some of the difficulties in the way of the compiler of catalogues, I do not think he has quite grasped them all. In the first place, if a nurseryman takes any one of the publications mentioned and bases his descriptions thereon, how can he be sure that the reader of such descriptions will possess that particular "répertoire" or "chart" or "code"? Why, even the Royal Horticultural Society has been unable to remain true to its first love. A year or two ago, having acquired a certain number of copies of the "Répertoire de Couleurs," it urged upon its members and the general public the multiple advantages of possessing such a standard, and I think, also, upon the horticultural trades the desirability of using it in their descriptions. It now appears that, having distributed a certain number, it has abandoned it for its own use in favour of Ridgway's Chart. I do not know Ridgway's Chart yet, but I suspect that when I do get it and endeavour to compare certain shades with what should be their equivalents in the "Répertoire," there will be very decided differences, because I am confident that the individual perception of colours varies to a far greater extent than is generally supposed. I have personally tested this by giving flowers of exactly similar shades (self colours) to different individuals and asking them to match the colours. On one occasion this was done with Carnation Uriah Pike, all carefully selected blooms. Five people each produced what they considered was a match, and each produced a different shade; moreover, although all agreed that the five shades were different, each maintained that his own selection was right. I cannot explain this, but only state it as an interesting instance of the difficulties the descriptionist has to overcome.

But there is another and greater difficulty still. Certain colours in flowers vary many shades in different lights. This is particularly applicable to the most difficult of all divisions to describe—the shades of blue, purple, lilac, lavender, and mauve, such, for instance, as occur in Irises and Delphiniums. If Mr. Jacob wants a really thrilling experience, he should spend one bright sunny afternoon among Japanese Irises as they grow here, and make careful notes as to their colours according to the "Chart." Then let him go over the same ground the next morning if it is dull and prepare independent descriptive notes. I think he would be surprised to find how much more the flowers vary than the "Chart" does, and unless he is blessed with exceptionally good colour vision, I think his descriptions on the two days would vary in nearly every case. I doubt if anyone would be able to fix the shade usually described as violet purple three days in succession to the same example in any chart yet published. Brilliant sunshine adds a luminosity to such examples that does more than change the shade

it makes one hesitate as to whether to approach it through the reds or blues to find its exact match in the colour chart. Try the same colour tone or shade on the next day when the light is grey, through being overclouded, and again on a bright, clear morning early, and the result will be very different.

Again, Mr. Jacob has, like the rest of us, undoubtedly noticed the brilliant intensity of colouring acquired by certain plants flowering in Scottish gardens in September as compared with the same things flowering in the South a week or two earlier; and at the Royal Horticultural Society's shows he must have noticed that certain Phloxes, for instance, vary many tones in colour, according to the district in which they have been grown. How is it possible, then, for any uniformity of description to become prevalent unless with the same chart, under the same conditions, the same authority decides upon it?—which, obviously, takes the responsibility out of the hands of the compiler of catalogues, because if six growers each cultivated the Tulip Siren that Mr. Jacob speaks of, even using the same colour chart, I think it would be found that their descriptions would differ considerably as to "exactly the shade of rose."

There is another minor difficulty. Colour-printing has not yet attained that perfection that it is permanent. In the "Répertoire" I have before me as I write, some of the blues are already taking on a sickly green tint, and on some sheets it will soon be impossible to distinguish No. 1 from No. 4.

I am well aware that Mr. Jacob did not set out to find more difficulties, but a method of overcoming those he had discovered, which is not so easy. First, as regards the "Chart." He does not say so, but I read into his paragraph on the "Répertoire" the words "stupendous and unwieldy," and it is, for ordinary everyday use in the garden. However, I think so far it is the most *complete* attempt at standardisation made, and if any degree of accuracy is to be achieved, it appears to me to form the best standard *work of reference* in existence. The number of variations is immense, but inasmuch as in most instances a floral example has been given of each, it would not seem to be too many. Indeed, my own experience has been that there are still certain tones that have no place therein. But how is it to be applied? Every Rose catalogue, hardy plant catalogue and bulb list published badly require revision. Not one of them has been the production of individual effort on the part of any one person. Messrs. So-and-so introduce a new Tulip. When it is put in commerce, it is described in their catalogue according to what their compiler conceives to be a correct standard of colour (usually his own). Other firms buy stock and eventually catalogue the same variety, adopting

the original description with the stock they purchase, right or wrong. The result is that the same shade of colour gets half a dozen different names in the same catalogue. I am not sure that if everyone gave their *own* opinion on the matter of the colour of a novelty, things would be much better.

What, then, is the remedy? Of one thing I am sure. If it is left to the horticultural trades, unaided, to bring about the revolution, it will never be done. Take the general catalogues issued by any firm, and think what it would mean to revise all the descriptions therein. Start



THE NEW NARCISSUS CYCLAMINEUS HYBRID SHOWN BY MESSRS. BARR AT VINCENT SQUARE LAST WEEK. (See Mr. Jacob's notes.)

now with the Crocuses and go on with the Tulips, Irises, Roses and all the etceteras throughout the coming year. Even supposing some firm could be found who were willing to incur the expense, or could afford it, of bringing every description possible within the understanding of the possessor of the "Répertoire," would such production be accepted as authoritative?—quite apart from the fact that it is hardly likely that any commercial organisation would be content to provide such a catalogue with a view to its being generally copied.

GEORGE DILLISTONE,

(To be continued.)

DAFFODIL NOTES.

BY THE REV. JOSEPH JACOB.

The Midland Daffodil Society.—As the dates (April 21 and 22) which have been fixed for this show approach, it may be well to say that a plebiscite of members was taken some time ago, when it was found that a good majority of votes had been recorded in favour of holding it as usual. The committee accordingly decided to go on with it as arranged. I take this opportunity of asking all who are in a position to do so to accord it all the support they can, either as exhibitors or subscribers, or both. It seems to me that one most important reason which can now be urged for its non-abandonment is the lateness of the season. To cover any loss and the possible wiping out of the small balance, one member wrote to the treasurer offering a special subscription of five pounds if five more would give the same. I believe that up to the present two promises in addition to the original tentative one have been received, leaving three more to be made.

Royal Horticultural Society's Classified List of Names.

—A long discussion took place at the Royal Horticultural Society's Narcissus committee meeting on March 9 relative to the large and increasing number of names sent in for registration. The general opinion seemed to be that it would be well if something could be done to limit the huge output. Messrs. P. R. Barr, G. W. Leak and myself were appointed a sub-committee to try to suggest some workable way out of the difficulty. When we have consulted together and reported to the general committee, I will refer to the subject again. The whole of the difficulty arises from the undue haste of raisers to name their seedlings before they really know if they are ever likely to appear on the public stage. A little restraint in this matter would help very materially to overcome the difficulty. Until a variety has lived for a certain time, and unless it is found to have merits as either a garden

plant or a show flower, it might well be allowed to remain "incog." under a number, or, if more convenient, have a sort of pet or garden name assigned to it for home use only.

Daffodils at Vincent Square on March 16.

—There were but two orthodox groups of cut blooms, and a few bowls with fibre-grown plants in a third, on this date. If we add a few stray pans of cyclamineus and minimus scattered up and down the various groups, and the Queen of Spains, Alice Knights, corbularias and two or three others in the beautiful spring border like arrangement of Messrs. Barr and Sons, we have enumerated

the whole of those that were there. Alice Knights (D, 3½; S, 1½ x 1; C, 1½ x 1½) received an award of merit for growing in pots. It is free flowering, early, not too tall and tractable. By this I mean it allows itself to be gently forced with a good grace, and does not look as if it always fought against it.

Messrs. J. R. Pearson and Sons staged in a light and tasteful manner an excellent collection of pot-grown flowers. Its chief value consisted in its affirmation of the suitability of certain varieties for pot work. It sounded a little strange to hear one lady casually remarking to another, "There is nothing much better than the *old Firebrand*." To one who remembers the avalanche of Leeds and Backhouse seedlings poured forth by Peter Barr in the days of yore, "old" sounds incongruous at first when joined adjectively to *Firebrand*, but on second thoughts it tells us of the march of Time. *Firebrand* is growing old, but it is crystallising out as one of our best pot plants. I have always maintained that as far as my own experience goes, *Homer* is about the best of all the Poets for the same purpose. Mr. Duncan Pearson and his foreman confirmed my opinion at this show, both verbally and visually. *Weardale Perfection* and *Blackwell*, as one would expect, were good. I was again struck with *van Waveren's Giant*. Readers may remember that I mentioned there was a fine vase of it on Mr. Bourne's stand at the Forced Bulb Show. Judging by the lists in the 1913 and 1914 Year Books, it does not seem to be known as suitable for pots, but from present appearances it looks as if it was. I thought both *Florence Pearson* and *Mrs. H. J. Veitch* distinctly good.

Messrs. Barr and Sons had a rather mixed group. A very lovely cyclamineus hybrid stood out by itself. The long, refined trumpet was just matched by the graceful, narrow, reflexing perianth segments, the whole bloom being a rich uniform yellow of about the shade of *Autocrat* (see illustration). It is very unfortunate so few of this charming type of hybrids live for any length of time. I append its measurements: D, 3; S, ½ x 1⅜; C, 1½ x 1. The only other named flower that caught my eye was a massive deep golden yellow *Ajax* with a slightly elliptical perianth and a widely flanged trumpet. It was called *Golden Chief*. Measurements: D, 4½; S, 1¼ x 1¾; C, 1¾ x 2¼.

Descriptive Terms.—From one or two communications that I have received, I think a good many people besides myself would welcome a recognised nomenclature. There should be one or two words to describe the texture of the perianth.

For example, what a contrast there is between that of *Autocrat* and *Michael* on the one hand and that of *Croesus* on the other! I think I once heard Mr. Crosfield describe the latter as "flannelly," which is not at all a bad word to use for that coarse, woolly-looking texture.

A FRAGRANT WHITE ROSE.

ALTHOUGH *Rose Mme. Alfred Carrière* was first put into commerce so long ago as 1879, it is still a great favourite with all who appreciate varieties with good and pronounced fragrance. It is classed by the National Rose Society as a Hybrid Noisette, and is best grown as a large, free bush, as shown in the accompanying illustration. Treated in this way it blooms profusely, and, unlike most other rambling Roses, gives a good second display in the autumn. Newly planted bushes do not, as a rule, flower freely, but when

BRITISH ROSES OF RECENT INTRODUCTION.

MANY new Roses of great attractiveness have recently been introduced by British rosarians. Conspicuous among these in any comprehensive collection are such fine specimens of the Hybrid Tea as *Josephine* and *Majestic*, from the world-famous nurseries at Waltham Cross in Hertfordshire, of which the former has, to my mind, distinct reminiscences of the venerable (and invincible) *Gloire de Dijon*; while the latter somewhat reminds me of my own English namesake, which was also raised by Messrs. William Paul and Sons, and is, I should imagine, like its gracious predecessor, a very fragrant Rose.

Several Hybrid Teas of the greatest distinction come to us from that highly distinguished raiser,



ROSE MME. ALFRED CARRIERE, AN OLD BUT FRAGRANT WHITE VARIETY.

the bushes are thoroughly established and not overpruned, they give a very good account of themselves. Practically all the pruning that is necessary is thinning out of old or obviously weak wood and the removal of soft tips. Although best grown as a large rambling bush, it is a good white Rose for arches, pillars or pergolas, and the large blooms are excellent for cutting. I have also found that *Gustave Regis* gives much better results when grown in this way, although I make a point of pruning it rather harder than I do *Mme. Alfred Carrière*. There is no doubt that many of these vigorous Roses give far the best results when allowed to grow almost as they like, *Grüss an Teplitz* and *Irish Elegance* being others that occur to one.

B. M.

Mr. Hugh Dickson of Belmont, near Belfast, two of the grandest of which are *Lady Clanwilliam*, whose uniquely exquisite attributes I have already in *THE GARDEN* endeavoured to emphasise, and *Mrs. James Lynas*, of luminous aspect and almost absolutely faultless formation.

Brilliant, whose complexion sufficiently illustrates the significance of its name; *William Cooper* and *Mrs. Archie Gray* are others, each of which may be said, without any exaggeration, to have eminently distinguishing beauties and characteristics of its own.

Chief among the most recent creations of Mr. Samuel McGredy, the redoubtable rosarian of Portadown in Ireland (who has given us so much that is of permanent value), are *Edgar M. Burnett*,

a variety of superb endowments, generally regarded as an improvement on Lady Alice Stanley; Colleen, a charming rose pink acquisition, with a high-pointed centre; Florence Forrester, one of the latest and loveliest additions to the great and growing race of Hybrid Teas; Mrs. Ambrose Ricardo, with splendid saffron yellow complexion; and, above all, Iona Herdman.

Of recent introductions from far-famed Newtownards, my supreme favourites are unquestionably H. V. Machin, one of the grandest velvety crimson coloured Roses in existence, which by reason of its greater reliability may possibly supersede the illustrious George Dickson; Killarney Brilliant, which is likely to prove a permanent acquisition; the brilliant Red Letter Day; and Queen Mary, whose truly remarkable combination of rich colours makes the latter fine variety quite

A GARDEN OF ROSES.

MANY of those who strive to keep their gardens gay from spring to autumn must have felt at times a little weary of the increasing attention demanded by ordinary herbaceous beds and borders. To such I suggest a garden of Roses. This proposal would have been ridiculous some fifteen years ago. To-day, thanks to the new class of floriferous Hybrid Teas which combine the good qualities of the Hybrid Perpetuals and Teas, it is possible to have a garden blossoming with Roses from early June to late October, while in mild seasons occasional blooms may be gathered in January. In choosing Roses for display we must select those

lighter shades may be included in such varieties as Betty, Dean Hole, Duchess of Wellington, La Tosca, Lady Pirrie, Pharisæer, Rayon d'Or, Sunburst and White Killarney.

The ground between the Roses may be planted with Violas. These will bloom unceasingly from April until October. Mauve shades are best, as they contrast with and show up the colours of the Roses. Rose beds of one variety only look well on a lawn, which is also an excellent place for standards. Dorothy Perkins and other extra vigorous growers of the wichuraiana class are excellent for arbours and on banks; but for covering walls it is best to select such kinds as the climbing varieties of Caroline Testout, Kaiserin Augusta Victoria, Liberty, Lady Ashtown, La France, Mrs. W. J. Grant, Richmond, with Grüss an Teplitz, L'Idéal and Zephyrine Drouhin, planted



THE STAR-FLOWERED MAGNOLIA (M. STELLATA) PLANTED IN FRONT OF EVERGREENS.

worthy of its exalted name. One of its celebrated contemporaries, viz., Irish Fireflame, is of quite exceptional beauty when in bud form or half blown.

Among other notable introductions of recent origination are Augustus Hartmann, raised by Messrs. B. R. Cant and Sons of Colchester; Cherry Page (for which we are indebted to Mr. Walter Easlea), whose flowers are semi-double and of most vivid carmine pink complexion, with golden yellow suffusion at the base of the petals; Oriflame, a beautiful native of Mr. George Paul's great nurseries at Cheshunt, a decorative variety of splendid floriferousness; and Braiswick Charm, an attractive creation of Mr. Frank Cant, which its eminent raiser regards as the nearest approach hitherto achieved to a perpetual-flowering wichuraiana.

DAVID R. WILLIAMSON.

Kirkmaiden, Wigtownshire, N.B.

kinds which are most perpetual and, among these, those of the most decided colours. Weak colours do not show up well, and should be included sparingly and only for some special reason. The borders should be filled with dwarf kinds. The most striking colour is red, which should predominate. I suggest that at least a third of the dwarfs should be of this colour. Such varieties as Liberty, Richmond, General Macarthur, Laurent Carle, G. C. Waud and Château de Clos Vougeot are suitable. These should be planted 2 feet apart in groups of three to five of one kind, distributed irregularly through the border. The spaces between these can be filled in mainly with groups of bright pink kinds, such as Caroline Testout, Dorothy Page-Roberts, Killarney, Lady Ashtown, Mme. Abel Chatenay, Mrs. W. J. Grant, Corallina, Lady Battersea and Irish Glory. A few

5 feet apart and not within 2½ feet of the dwarfs. These varieties, as well as the more vigorous Gloire de Dijon and William Allen Richardson, are glorious subjects for arches, or as pillar Roses for planting on the lawn or in the shrubbery. Shady parts of the garden may be planted with flowering shrubs and pillars of Gloire de Dijon. H. TEA.

A BEAUTIFUL EARLY FLOWERING MAGNOLIA.

THE Magnolia illustrated above is a good and beautiful kind for nearly all gardens, and one has no hesitation in recommending it to all who appreciate spring flowers. *M. stellata*, as its name implies, has star-shaped, pure white flowers, and is usually the first to open its blossoms, these generally unfolding about the first week in April.

In one respect this is a drawback, as they are liable to get damaged by early morning frosts. However, it is such a beautiful shrub that this risk is well worth taking. Unlike most of the tribe, *Magnolia stellata* never attains a great size, forming at its full development a close spreading bush 6 feet or so high. *Magnolias* appreciate deeply cultivated and well-enriched loamy soil to which some peat and leaf-mould has been added. They can be successfully planted either in September, March or April; but as they are impatient of disturbance, they should be left alone as much as possible. Most nurserymen supply young plants in pots, and these are the best to purchase. The illustration provides an excellent object-lesson in effective planting. It will be seen that the *Magnolia* is situated in front of a dense belt of trees and shrubs. These answer a twofold purpose—they provide shelter from the north and east winds, which mar the flowers in spring, and form a dark background, which emphasises the glistening purity of the blossoms. These are points which ought to be remembered when it is decided to plant and grow *Magnolias*.

W. F.

NOTES ON CATKINS.

THERE is promise of a good crop of Cob Nuts this year. Hazel woods have been bright with golden catkins, and if all goes well, the plantations of Kentish Cobs and Filberts will yield an abundant supply. In the plantations of Kent the Nut trees are all grown in uniform shape. They are basin-like and level topped, and at first sight resemble indifferent examples of topiarian art. It is the result of restricted pruning and thinning, for the best Nuts are grown on the well-ripened, twiggy growths away from the centre of the trees. Let it not for one moment be thought that the showy catkins will themselves be converted into nuts, for they are simply the pollen bearers, and after the golden, dust-like pollen has been distributed by the wind, their work is completed and they fall off. To find the Nut-forming or female catkins, one must look very closely, for they are small, almost microscopic, crimson flowers, invariably produced on well-ripened, twiggy branches. The Constantinople Hazel (*Corylus Columna*) does not appear to be well known; it is a near relative of the Wood Nut, but it will reach a height of 50 feet. The catkins are long and freely borne, and impart quite an attractive feature at this season. The Nuts, which are about the size of Hazel Nuts, are borne in closely packed clusters of six or more, surrounded by curiously twisted husks. Not the least interesting of the catkin-bearing trees is the Alder (*Alnus glutinosus*), which produces both barren and fertile catkins. The former, long and drooping, are usually borne in the autumn, lasting through the winter, while the fertile ones are produced in spring in persistent oval catkins, resembling Fir cones in shape. It is interesting to observe that most catkin-bearing trees depend upon the wind for the distribution of pollen. This applies to the Oak, Birch, Alder, Poplar and Hazel, all producing pendent catkins, from which the powdery pollen is freely carried by the least puff of wind in fine weather. This is one reason why catkins are, as a rule, produced so early in the year, for in the absence of leaves the chances of fertilisation are increased. The Willow or Sallow, unlike the foregoing, does not

produce pendent catkins, neither does it rely upon the wind for the distribution of pollen. Moreover, the catkins are scented, while the crowded stamens and yellow anthers are conspicuous from afar.

C. Q.

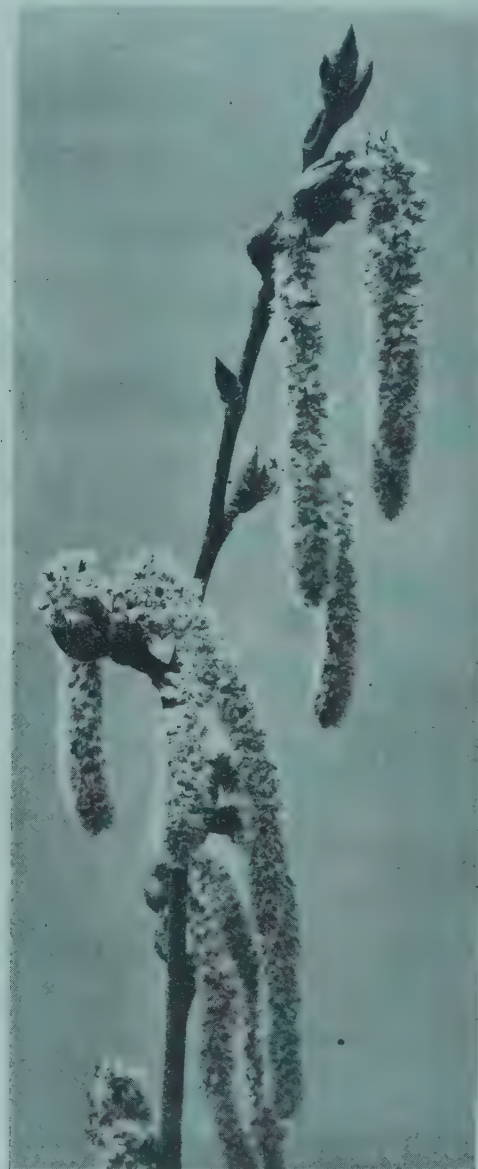
COLOURED FREESIAS.

I AM growing a small collection of Van Tubergen's hybrids. I doubt if there are any that are more satisfactory than Contrast and Dainty. Both varieties are tall growers; both have nice-shaped blooms; both are particularly good "doers"; and both are very free, the branched stems bearing several minor sprays which provide

improve on further acquaintance. The plant is too dwarf for the size of its flowers, and the stem is too much on the weak side. Size is nowadays a sort of "charity" among certain appraisers of floral worth, inasmuch as it covers a good many faults. In Robinetta we have a deeper-toned and larger-flowered Tubergenii, almost the rose shade labelled "Spence Red" in the American Colour Chart. Canary is a pretty pale yellow or very deep primrose with orange markings on the lower petals. Like many of these new coloured varieties, it deepens in tone with age. A pretty shade of lavender is to be found in Côte d'Azur, the flowers of which are of good size and freely produced. The plant is not a very tall grower, being only two-thirds the height of either Contrast or Dainty.



SHOOT OF THE CONSTANTINOPLE HAZEL
(*CORYLUS COLUMNATA*).



CATKINS OF THE ASPEN
(*POPULUS TREMULA*).

successional flowers. Contrast is an ivory white with a bright orange blotch on the outermost of its three lower petals; while Dainty, which has much the same open-shaped bloom, is a rosy heliotrope which with age turns to a soft rose. This year I have grown Excelsior, the Freesia that received an award of merit last season. I also saw it exhibited at the Royal Horticultural Society's show on February 16. I am very disappointed with it on this my first introduction, nor does its look give me much hope that it will

Most of this new type are expensive. The lowest priced of those here mentioned is 6s. per dozen. Against this I have proved to my own satisfaction that they are easy to keep and increase, and the purchase of four or six bulbs one season means in two years' time several pots of each.

Mr. Duncan Pearson's excellent advice about cultivation in THE GARDEN for February 20 makes it needless for me to say anything under that head.

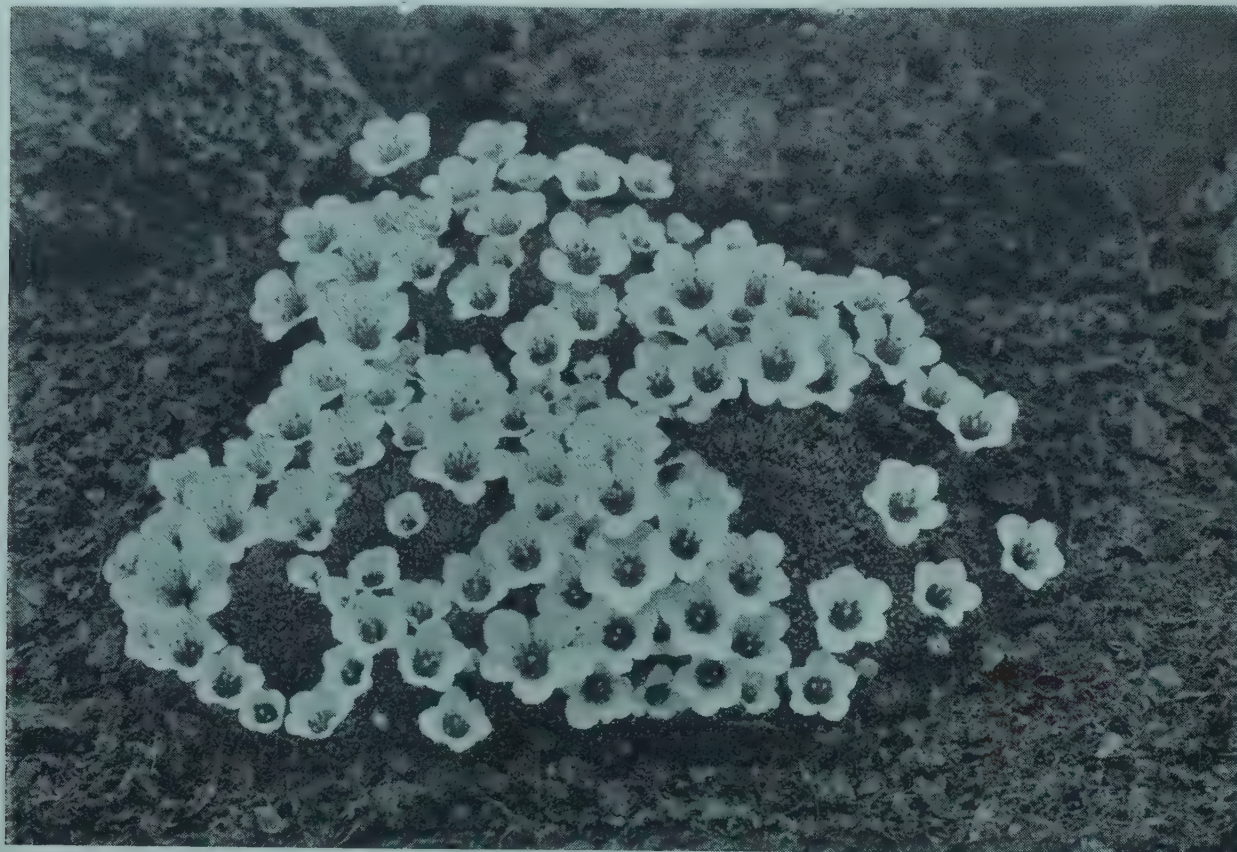
JOSEPH JACOB

NEW AND RARE PLANTS.

AWARDS OF MERIT.

Brasso-Cattleya Cliftonii Sir John French (B.-C. digbyano-Mossiae \times C. Trianae).—A variety of handsome proportions and remarkable colouring. The sepals and petals are rosy pink, the shapely lip heavily fringed. Above this the frontal portion is clouded with gold, with crimson

ago by Messrs. Barr at their Surbiton nurseries, has previously been honoured by an award of merit on its good qualities as a flower. On the present occasion the honour was repeated, because of its adaptability to pot culture. Naturally, it is the earliest of the white trumpet sorts, and its ready response to pot cultivation cannot but enhance its value. Exhibited by Messrs. Barr and Sons, Covent Garden, W.C.



THE NEW HYBRID SAXIFRAGA IRVINGII. THE FLOWERS ARE BLUSH PINK.

reticulations at the base of the tube. A rare colour combination in a most fascinating flower. Exhibited by Messrs. Stuart Low and Co., Jarvisbrook, Sussex.

Lycaste Janet Ross (L. rossiana \times L. Skinneri).—A very beautiful and distinct hybrid, exhibited in fine condition. The predominant colour of the sepals and petals is pale primrose, the chrome-tipped lip suffused with crimson and minutely peppered with a similar colour at the base of the tube. A well-flowered example showed the plant to perfection. From Messrs. Sander and Sons, St. Albans.

Saxifraga oppositifolia R. W. Prichard.—Without derogatory intent to the other members of this set, we may well describe this as the most distinct, both in colour and in the form of its flowers. The latter are somewhat starry, petals separated, roundly ovate at first, and finally acutely pointed. The colour is rosy lilac. From Mr. Reginald Prichard, West Moors, Dorset.

Carnation Good Cheer, and, we may add, good colour, pleasing fragrance, vigorous stem and perfect calyx. These are some of the essential attributes that go to make a first-class commercial Carnation to-day, and though we have not yet reached the acme of perfection in the "divine flower," and probably never will, Good Cheer, of roseate hue, is good enough to go on with meanwhile. Under artificial light it is most telling. From Messrs. Wells, Limited, Redhill.

Narcissus Alice Knights.—This supremely beautiful white trumpet Daffodil, raised some years

All the foregoing were shown before the Royal Horticultural Society on the 16th inst., when the awards were made.

Saxifraga \times Irvingii.—This charming hybrid Saxifrage, which obtained an award of merit when shown by Mr. Clarence Elliott at the meeting of the Royal Horticultural Society on February 9 last, is the result of crossing *S. burseriana* variety *macrantha* with *S. Frederici-Augusti*. *S. burseriana* itself is a very variable species, and to those who know only the larger-growing kinds, like *S. b. Gloria*, it would appear that the present plant could hardly have been derived from that species. In the variety *macrantha*, however, we have a form with tufts of very small rosettes of leaves, quite unlike the usually grown kinds, and it was from this that the present hybrid was obtained. The latest form of *S. burseriana* to flower, the variety *macrantha* is not over till the red-flowered *S. Frederici-Augusti* is in bloom, which is not till most of the other forms are over. *S. Irvingii* partakes more of the character of the former, with similar tufts of foliage and single flowers, the only evidence of the red parent being in the colour of the flowers, which is a blush pink, deeper in the centre. The stems are only about one inch or so high, and, as may be seen in the illustration, it is very free flowering. In the same batch of seedlings was another plant which partakes more of the character of *S. Frederici-Augusti* in foliage and habit, but with larger pink flowers, several on each stem. This latter has been named *S. kewensis*.

THE BARDFIELD OXSLIP.

NOW that hardy plants are so extensively grown in all kinds of gardens and situations, it is strange that the beautiful Bardfield Oxslip (*Primula elatior*) should be so universally ignored. It is true that a few nurserymen who make a speciality of hardy plants include it in their catalogue, but, judging by the examples often found shown as this plant, the true form is exceedingly difficult to obtain. This is unfortunate, as it is the most charming member of the Primrose family found growing wild in this country, and will thrive well under cultivation. It has been regarded by some authorities as a hybrid between the common Primrose and the Cowslip, but others regard it as a distinct species and not a hybrid. To those who love hardy plants for their beauty, this will not matter much; it will suffice that the plant has a decided charm of its own. The flowers are pale yellow or primrose in colour, and several, generally from five to eight, will be found surmounting an upright stem some 4 inches to 7 inches high, according to the situation in which the plants are growing. The blossoms assume a pendulous habit and sway about almost like pale golden bells in the spring breezes and sunshine. A single plant will often produce several of these flower-heads, and such an example is of more than usual interest. A curious fact about the Bardfield Oxslip is that it is only found growing in quantity in two localities, viz., the Bardfield district of Essex, whence it derives its popular name, and a district in Cambridgeshire. Isolated groups or specimens are found in a few other counties, but the plant is far from common. It may be of interest to note that in Essex the Oxslip is called by ordinary folk Cowslip, the plant commonly known by that name being known there by the old French name of *Pægle*. In the Essex woods, in the locality named, this beautiful wilding is found by the thousand, the ground beneath the trees in the more open spaces being almost carpeted with the plants. Such a quantity when in bloom in the early spring months provides a picture of great beauty that would lend considerable charm to any wild garden, providing plants sufficient for the purpose could be obtained. The soil in the woods in question is stiff Essex clay, ameliorated by a certain amount of decayed leaves, and those who can obtain plants should aim to give them a cool rooting medium with overhead shade during the hot summer months. There would be no difficulty in securing a large number of plants once a few were obtained, as they stand division well, providing this is done immediately after flowering. The plants also seed freely, and doubtless young plants could be raised from these seeds. In any case the plant is one well worth making an effort to obtain, and it is to be hoped that nurserymen will soon realise its beauty and raise a stock of the true form for sale. It would certainly meet with a good demand.

VEGETABLE MANURE.

AS is well known to many people, stable manure will get rapidly scarcer and scarcer, owing to the increasing number of motors and the remarkably few horse-drawn vehicles. Readers will feel rather "up a tree" to know how to go on, and I beg a little of your valuable space to offer a suggestion. All of your readers have heard of vegetable manure, but many people shy at the name of it, as I pointed out in an article published elsewhere a year ago. But I have always been an advocate of using vegetable manure, or part vegetable and part animal manure, for both flowers and vegetables; and as I know from my own experience what can be done with vegetable manure, I think I am in a position to write to your esteemed paper about it.

The soil here is good but shallow, turning to clay and shale 1 foot from the surface. I find that well-rotted vegetable manure, dug into the borders in the autumn or spring, is productive of good crops of flowers from annuals and perennials. It is not quite so successful with vegetables, seeing that deep digging is also largely needed before big roots of such as Carrots and Parsnips can be obtained. But for flowers on this soil I would just as soon use well-rotted vegetable manure as animal manure, and I wish I had far more of it than I have.

My object in sending you this letter at the present time is to induce readers to think twice before they waste soft vegetable refuse by allowing it to be carted away. The more of this that can be saved from now till next October the better, and then the scarcity of animal manure will not be felt nearly so much. There are, of course, certain ways of going to work, and one of the best is to have a very large pit dug some six feet deep, or rather less, about nine feet wide, and as long as may be convenient. Have this bricked round the sides of the soil, and into this pit throw all the soft refuse that is available. Weeds (provided they are not Dandelions), old Cabbage leaves, long grass, mowings from the lawn, and any of the soft stuff which is taken off the borders throughout the spring and summer, may be thrown into the pit as it is collected. But, of course, keep out stones and such like, as these spoil the manure. It is necessary to have this in an unfrequented place, but this can usually be managed. If the pit is very big, it will, of course, hold a great deal, and should not be disturbed before it is necessary. Lime sprinkled about will help to keep down the unpleasant smell, and after a lot of fresh stuff has been put in, it may be covered with a thin layer of poor soil, which will also help to do this. However, in time it will need digging out, and the rotted stuff should be stacked in an open place—in a field if possible—away from tree roots. Let it remain for a time as it is, or cover it with some soil or manure; and then, after a time, the manure may be removed and the vegetable refuse dug in in the late autumn as manure. In closing, I hope that this suggestion may be of some use to your readers, and apologise for the length of this letter. Very excellent results have been obtained here by using well-rotted vegetable manure for the flower borders, and, seeing manure will be so hard to get, surely vegetable manure might be more generally used instead.

Weekwood, Ecclesall, Sheffield. E. T. ELLIS.

GROWING POTATO TUBERS FROM SEED.

PROPGATION of the Potato from small tubers, and known to gardeners as "sets," is too well known to need description. The fact that this vegetable can be raised from the actual seed of the Potato plant is known to very few.

In common with most amateurs, I have been under the impression that growing Potatoes from seed necessitated the use of a heated structure. However, that this is not the case this article will show. Last year (1914) I obtained a six-penny packet of Potato seed, and sowed it in a pan of sandy soil on March 29. The pan was then placed in a cold frame. It may be remembered that we were favoured last April with some fine, sunny weather, a temperature of 105° being registered more than once in the sun. Perhaps this accounted for my success with cold frame culture, as a greenhouse heat was maintained by day, although at night the thermometer only registered 50°. Every seed germinated, and the first seedling appeared on April 9. The seed leaf is pointed, and not unlike that of a Delphinium or Parsley seedling; in fact, at first I thought it was a Chickweed plant. The frame was kept close until April 25, when the first rough leaf had formed. After this a crack of air was admitted on fine days, the frame being closed and matted

Potato seedlings, as they had the true Potato leaf. On May 24 the top was removed from the frame, and the little plants hardened off ready to transplant out of doors.

On June 2 I took the photograph of the pan of seedlings, which were then from 2 inches to 3 inches high and nice little plants. After this they were transplanted into nice sandy loam. I was somewhat surprised to find that they now had two and three tubers on each root, being about the size of a small Pea. They were planted about six inches apart and watered in. When it was seen that they had taken hold, they were moulded up slightly, and after that had no further attention until they were dug. On July 15 the plants had grown to a foot high, and had exactly the same appearance as plants from those little tubers which slip through the fork at digging-time and afterwards germinate. On September 26 the haulms showed signs which indicated that the crop was ready to dig, and this was done, with the result that each root yielded four to five tubers ranging from the ordinary "set" size to that of a Pea. Every tuber was saved. These will be again planted this (1915) season. The shape of the tubers varied considerably, some being round, others oval, and, of course, a few, which reverted to the wild type, a long, thin, pointed shape.

At the end of 1915 the produce from these small "sets" will be lifted and sorted, the best-shaped ones being again grown on in 1916, when it will be possible to see if there are any really good new ones. It is quite possible that there might



A PAN OF SEEDLING POTATOES PHOTOGRAPHED ABOUT TWO MONTHS AFTER THE SEED WAS SOWN.

up at night. After a further three weeks of very hot weather the seedlings went ahead, having made five rough leaves on May 6. At this time they were somewhat crowded in the small pan, and about an inch high, so were carefully transplanted into a larger pan and then returned to the frame. There were very few roots at this stage, and the seedlings felt a slight check. However, on May 16 it was quite easy to see that they were

be one equal to Up-to-Date, in which case the entire stock would probably be marketable to a specialist, or the gardener could dispose of the produce himself.

The cultivation of new sorts from seed is a very fascinating business, and, as will be seen from this short description, does not entail a great deal of care or previous knowledge.

CLARENCE PONTING.

Throxenby, Great Missenden.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Early Peaches and Nectarines in Pots.—As soon as the fruits have passed the stoning stage, strict attention must be paid to watering. During bright weather it will be necessary to examine the pots two or three times a day, for any neglect in this matter would be disastrous to fruit trees growing in pots. Manure-water and other stimulants may now be given more frequently and with increased strength. It will be of great benefit to the general welfare of the trees if the pots are plunged to the rims in litter. The final thinning of the fruits must be done now. Thin the fruits in proportion to the size and strength of each tree. Remove all superfluous growths and keep the young growths regularly pinched. The trees may now be subjected to harder forcing, but it should be remembered that this must be done chiefly by husbanding the sun-heat in the afternoon.

Midseason Peaches.—The work of disbudding must be carried out at regular intervals, thus causing no serious check to the trees. Where the fruits have set very thickly, all those that are badly placed may be removed at once. See that the roots do not suffer for want of water after the fruits have, et, and afford plenty of stimulants to established trees carrying heavy crops.

Late Peaches.—It is sometimes desirable to retard the latest trees as much as possible, but when the flowers are open, cold draughts must be avoided.

Plants Under Glass.

Chrysanthemums.—Some of the most forward plants may now be placed in cold frames to make room for other subjects. Those recently potted must not, however, be subjected to cold draughts. Pot on later plants as they become sufficiently well rooted. In a week or two it will be safe to place the whole of them in cold frames.

Cyclamen.—As the old plants pass out of flower, remove those which are maturing seed and keep them well supplied with water. Others which are being saved to pot on may be placed in a cold frame and kept dry for a few weeks. Pot on young plants when necessary and keep them growing near to the glass in a warm, moist house.

Schizanthuses.—These and other annuals growing in pots should be liberally treated in regard to watering and feeding. Most of the plants must be supported with stakes, but let this be done with due regard for their natural habit. Make another sowing of Mignonette. This plant is always welcome in the greenhouse. A sowing may also be made on a sheltered border outdoors.

The Flower Garden.

Bedding Plants.—Many plants which are established in pots or boxes may now be removed to cold frames. This will give more room in the house to others which need to be grown on. Heliotropes, Ageratums, Lantanas, Pelargoniums, Iresines, Marguerites and various kinds of annuals may all now be safely placed in cold frames. They must, however, be well cared for in the matter of ventilating and watering, and sufficient protecting material must be at hand in the event of sharp frost. Continue to prick out seedlings before they become drawn in the seed-pan, and persevere in the boxing or potting of rooted cuttings. Plants which have been wintered in cold frames must be well ventilated, and during favourable weather the lights may be entirely removed.

The Herbaceous Border.—Large clumps of border Phloxes must be thinned, leaving only those shoots which are strong enough to flower. Some of the shoots may be used for propagating. Plants propagated last year can now be planted out, and those of *Anchusa italica* which were raised from seed last year may also be planted. This lovely border subject is easily raised from seed sown now.

The Rock Garden.—Now that growth is active, the stronger-growing plants must be watched, or they will smother some of their smaller neighbours. It may be necessary in some cases to root out some of the old plants, where young ones are at hand to replace them. If this work

of curtailing the growth of strong-growing plants is done regularly, no unsightly gaps will be made.

The Hardy Fruit Garden.

Pruning Recently Planted Trees.—There need be no delay in pruning trees which have been planted this season. Opinions differ as to what extent young trees should be pruned. Peaches and Plums planted against a wall ought to be cut fairly well back to induce growth from the base of the branches. For Apples and Pears planted in the open, the leading growths may be cut back about one-third their length. Cut well back shoots which are crossing each other, and leave ample room between the branches for light and air to penetrate right through the trees. If the mulching of young trees has not been done, no time should be lost in doing so, as this will be of great benefit in the event of a dry season.

The Kitchen Garden.

Carrots.—A sowing of one of the stump-rooted kinds must be made on a well-worked piece of ground. I believe in making small sowings of Carrots every month to ensure a good supply of young roots all through the season. Carrots growing in frames should be ventilated freely, both by day and night, during favourable weather.

Radishes.—Make small sowings of Radish on a warm border every ten days. During dry weather they must be watered frequently.

Broad Beans.—Another sowing of this valuable vegetable may be made now. In a season like the present it is advisable to sow the seeds in boxes in cold frames. Even if this is not practicable, a few seeds should be sown in boxes for the purpose of filling up gaps, which are sure to occur when the ground is wet.

E. HARRISS.

(Head-gardener to Lady Wantage.)
Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Tomatoes.—The early crop will by this date be growing freely. Do not allow the plants to starve, but top-dress them with loam enriched with a good fertiliser. White fly is usually very troublesome, and requires a fairly strong fumigation to kill it outright.

Carrots.—Make a good sowing of Carrots to succeed those growing on hot-beds and in frames. Early Nantes is a suitable variety for this sowing.

French Beans.—From now until the outdoor crops are ready, supplies will have to be obtained from cold frames. To gain time, continue to raise the plants with the aid of pipe-heat, planting out in the frames as the plants become hardened.

Brassicas.—The sowing of the main crops ought now to be done, excepting the Broccoli and some of the Kales, which are better left for some time yet. Choose a fine day when the ground is in good order, and if birds are troublesome, protect the seeds with nets.

Beetroot.—The roots from last season should keep up supplies until June or July, at which time they may still be had in excellent condition if they are properly preserved in an outdoor pit of soil, which is best situated in a shady part of the garden. For a succeeding crop, to be ready for use during August and onwards, a sowing must now be made of a globe-shaped variety.

Vegetable Marrows.—The main crop should now be sown indoors and potted on to prevent the plants starving until it is considered safe to plant in their permanent quarters, usually about the last week in May.

Fruit Under Glass.

Grapes.—Do not delay the thinning of Grapes as soon as it can be determined which berries are seedless. These should first be dispensed with; then remove the berries which tend to point inward, and remember to always preserve the berries on the extremities intact. Care must be taken that the person thinning the Grapes does not in any way come in actual contact with the bunches, or disfigurement will result.

The Hardy Fruit Garden.

Newly Planted Trees.—Trees, especially standards, are in danger of becoming loosened by the wind. It is therefore necessary to see they are duly supported, and in such a manner that the bark is not likely to become injured. Newly planted trees are apt to suffer in another respect at this season, should there be many drying winds. As a precaution the soil in which they are planted ought to be trampled firmly, and if there is danger of continued drought, a mulch of litter should be applied to each tree.

Strawberries.—Sometimes, owing to circumstances, it may not have been possible to make a young plantation during August. Instead of this, the runners which were laid in closely on a sheltered border to winter will now be showing signs of growth, and should be planted before warmer weather comes, so that they may be establishing themselves against a possible dry summer. Make the rows 2 feet 6 inches to 3 feet apart, and plant carefully, taking care not to bury the crowns.

The Flower Garden.

Gladioli.—The planting of these bulbs must not be delayed, or they will be liable to lose some of their vitality. Some varieties, notably princeps, only commence to flower when they are liable to be cut down by an early autumn frost. This trouble, however, can easily be overcome by a little attention at this season. Instead of planting out, fill boxes with some light compost, chiefly formed of leaf-soil, and start in gentle heat, eventually planting into their permanent positions when they have grown 8 inches or 10 inches in height. Other varieties to be recommended are America, Hollandia, Baron J. Hulot, Hallii, Faust and Pink Beauty.

The Herbaceous Border.—If any new plants are to be added to the collection, they should be planted now, when most plants are commencing to grow. Keep watch constantly for any slugs or snails that may be active on any of the choice and tender subjects.

Dahlias.—Unless grown from cuttings, this date is quite early enough to start the plants into growth. Do not excite growth by the use of too much heat; a temperate house will produce much stronger growths.

Roses.—It will depend a good deal both upon the state of the weather and how far the growth of the buds has advanced, but, generally speaking, almost the entire Rose pruning should be done within the next few days. If unduly delayed, there is a danger of a loss of vitality to the bushes. There is no hard-and-fast rule, but the general practice is to first remove all dead and weakly growths; then prune the remaining growths according to the purpose for which they are required. For general garden display a less severe pruning is naturally required than in the case of plants which are expected to produce exhibition blooms.

Plants Under Glass.

Single-Stemmed Chrysanthemums.—The most forward plants will now be ready for a shift into 5½-inch and 6-inch pots. Make certain that all the pots are clean before using them. Let the soil used be fairly rough. Good fibrous loam, leaf-soil and sand, with some spent Mushroom-bed manure, will make a good compost. A small quantity of soot and an approved fertiliser can be added. As soon as potted, confine the plants to frames, which should not be ventilated too freely for a few days. Be very careful in applying water. On bright days a spraying with the syringe will be of great help.

Gloxinias.—More tubers of these choice flowering plants should be shaken from the spent soil and started in a light compost. Place them a safe distance apart in boxes and keep in the stove. Gloxinias, although benefiting from a humid atmosphere at all times during their growth, nevertheless resent the water actually on their foliage. Young plants resulting from seed sown during January will now be ready for pricking off, and this is best done in boxes of soil, which should be light and flaky, with plenty of silver sand included.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine,
Bart.)
Castlemilk Gardens, Lockerbie, N.B.

ANNUALS FOR THE ROCK GARDEN.

THE right or wrong way of using an assortment of plants of annual growth in the rock garden may be safely left to individual taste and circumstance, but there is no doubt whatever that it is possible, by the introduction of suitable varieties, to considerably add to the brightness and interest of the rockery at a time when a great many other, and perhaps more genuine, rock garden plants are beginning to wane.

Thanks to the untiring efforts of some of our leading seedsmen, there is a large selection to choose from, thus allowing personal taste as to colour to be gratified to a large extent. The popularity of a walk through the rock garden during the cool of the evening is quite recognised, and if near the approach to, or path from, the garden some annuals noted for their fragrance are used, the result certainly repays our trouble.

When considering suitable plants for such a purpose, the Night-scented Stock (*Matthiola bicornis*) will at once come to mind, and right well does it deserve recognition, for its fragrance is delicious. Mignonette also has its host of admirers, and should be "squeezed" in somewhere; and another plant, bearing, as it were, Mignonette-like spikes and emitting in the evening a delightful sweetness, is the South African introduction, *Habenstraitia comosa*. It is white, with blotches of orange, and grows about one foot or eighteen inches high. *Schizopetalon Walkeri*, growing from 6 inches to 12 inches, although perhaps not having much claim to a "display" with its queerly arranged white petals, is worth a place for its sweetness alone. In concluding this brief list, I would fain plead for the Tobacco Plants (*Nicotiana*).

Admittedly, the rampant growth of the majority shuts them out from many positions, but where it may be found possible to use, perhaps, the dwarfer ones, they most certainly should be, for they fill the evening air with their fragrance.

For general use on and around the rockery quarter the following list may be found useful:

Name.	Height and Colour.	Remarks.
<i>Abronia umbellata</i>	Rose (trailer)	Really perennial, does well as annual.
<i>Anagallis</i>	About 6in., blue and scarlet	Delights in sun; half-hardy annual, or sow end of April outside.
<i>Alyssum</i> , annual	From 3in. to 9in., white	Useful for small crevices near pathways.
<i>Asperula azurea setosa</i>	From 9in. to 14in., pale blue	Lasts well; hardy annual, scented.
<i>Antirrhinum</i>	Known as "dwarf," various tones	Should be given a sunny spot.
<i>Campanulas attica and attica</i>	About 6in., violet and white	Both hardy annuals and very free.
<i>Candytuft</i>	From 6in. to 12in., mixed colours	Of easy culture.
<i>Coreopsis</i>	Those known as "dwarf"; for preference, crimson and golden	Very showy and not fastidious.
<i>Convolvulus minor</i>	Generally 1ft., the blue and white best	Give open spot.
<i>Delphinium Blue Butterfly</i>	12in. to 15in.	Makes a very bright patch indeed.
<i>Eschscholtzia Miniature Primrose</i> ..	3in. to 6in., lemon shade	A little gem.
<i>Ionopsidium acaule</i>	About 2in., lilac or mauve	Of free growth; pretty in crevices.
<i>Leptosiphon hybridus</i>	From 2in. to 4in., many shades	Blooms freely; hardy annuals.
<i>Lupines</i> , annual	Height 1ft., several shades	Looks well against a rough stone.
<i>Nasturtiums</i> , dwarf	From 6in. to 12in., many lovely shades ..	Exceedingly bright; poor soil and a sunny crevice required.
<i>Nemesias Suttonii and hybrid</i>	From 6in. to 12in., mixed, including a lovely orange shade	Half-hardy annual; worthy of good soil and position.
<i>Oenothera</i> (Evening Primrose)	6in. and 12in., rosea, <i>Drummondii nana</i> (yellow)	Useful as adding variety.
<i>Phlox Drummondii</i>	6in. to 12in., mixed	Very useful if sown rather late outdoors; free.
<i>Phacelia campanularia</i>	About 9in., lovely bright blue	Prefers light, warm soil.
<i>Papaver nudicaule</i> (Iceland Poppy) ..	From 9in. to 14in., many shades	Strictly perennial; does well as annual if sown early.
<i>Sedum caeruleum</i>	3in. or 4in., pale blue shades	Looks pretty in pathway crevices.
<i>Virginian Stock</i>	6in. to 9in., several colours, crimson best ..	Generally used for early work, but if sown end of March does well.

Serlby Gardens, Bawtry, Yorks.

THE PRESENT NECESSITY FOR CULTIVATING VEGETABLES.

SOME REASONS AND SUGGESTIONS.

THAT most people, particularly those of the amateur gardening fraternity, have read the numerous articles and paragraphs that have appeared from time to time in various newspapers and periodicals dealing with the supply of vegetables in war time, may be assumed by the jocular remarks one frequently hears about "turning the garden this year into a vegetable patch" or "decorating the Rose borders with Cabbages," and so on. While many of these articles are most helpful and serve a useful purpose, very few, if any, go to the root of the matter by giving reasons why it is vitally necessary that those who are unable to serve in the forces of the Crown should help at home by making every effort to increase the food supplies, even if it is only sufficient, or partly so, for their own consumption.

The rapid increase in the cost of food is only one of the reasons, and not the greatest, as I shall endeavour to illustrate. The principal and outstanding feature is the limited supply of labour. The dearth of labour has always been a serious problem in rural districts, and it is a moot point whether the large area of land under pasture in this country is not largely due to this. Education, low wages, the absence of good housing accommodation and the attractions of town life have each contributed their quota to the problem. In every village throughout the land were to be found reservists who, on the outbreak of war, were called to the Colours; since then every village and hamlet has given its share, and more than its share in many cases, of its bravest and best to the New Armies. The absence of this vast army of labour when the majority of crops need to be sown for future supplies can only have one result at harvest time, whether the war lasts the proverbial three months or three years.

The same problem will have to be faced in such enormous grain-producing countries as Russia and Canada, who have each mobilised enormous bodies of men for the war. Even supposing large bodies of men are drawn from the towns for the Army, the dearth of labour resulting therefrom would

attract the rural worker now as in the past. France and Belgium have been providing large quantities of fruit and vegetables for our markets. If the former is able to spare any now or in the near future, which is very much to be doubted, the supplies would be very limited; certainly we shall get none from the latter country this year, at any rate.

Without undue pessimism, and taking all these facts into consideration, one can only come to one conclusion, and that is, if we are to avert or wish to minimise the inevitable result of the present state of affairs, it is every person's duty to do his or her utmost to obtain from such land as is in their occupation all they possibly can.

It should be borne in mind that our present food supplies are the fruits of last year's harvest, and that it is upon the next harvest that the effects of the war will be felt. The cost of food is increasing, as already stated, but he would be a daring individual who would predict the prices that will rule next winter. Already we hear of market gardeners who are restricting their crops to those kinds that require the least amount of labour.

Many gardeners probably will hesitate at giving up their cherished flower borders to grow vegetables—and who shall blame them?—but there are more ways of killing a cat than (trying) to drown it. Why not compromise? Take Beet-roots, for instance. Two or three seeds sown here and there will provide beautiful foliage plants, and when the frosts come and the flowers are all gone, there is one useful article of food in the ground ready to be dug and prepared for the table. Parsnips, again, with their Fern-like foliage; a few seeds judiciously planted, surely they would not look amiss growing among the flowers; and what more useful article of vegetable food for the winter could one grow? Even the humble Swede, so often despised, possesses a foliage that would put to shame much of the foliage of border favourites and, to those who are partial to them, form an excellent article of vegetable food.

Apart from these suggestions, if only the various plots of prospective building land in and around our towns could be utilised for growing vegetables until such time as they were required by the owners, it would help matters very much. Surely some of the owners, if not all, would be willing to grant the use of their land, on a yearly tenancy, for a reasonable figure, which would be far better than leaving it idle and unproductive, as is only too frequently the case. We have in London some striking examples of what can be done in this respect; and through what better medium could this be effected than the local horticultural societies, who would undoubtedly be only too glad to undertake such a task as apportioning them to prospective tenants, of whom there is not likely to be a dearth?

It is not too late to start such a scheme, although no time should be lost. Ground that could be tilled now would provide good crops of Potatoes and many other vegetables by the autumn. It would be doing a public service if willing owners could be induced to supply the secretary of the society in the district in which their land lay with particulars of the ground available; or, better still, that the secretary should approach the owners, providing he was satisfied that there would be a demand for such by the residents. The necessary negotiations could easily be carried through by the committee of the society.

ERNEST C. CROSS.

(Hon. Secretary, Hale End Horticultural Society.)

H. TURNER.

THE EVESHAM VALLEY IN EARLY SPRING.

THESE are few more interesting places in which to spend some days in the early spring months than the Vale of Evesham, which has of late years rightly been regarded as the centre of the fruit-growing and market-gardening industry in this country. This eminent position has not been brought about merely by chance, but is rather the result of a combination of several circumstances, chief of which is the particularly fertile soil that is found on almost all the land. To this must be added the inborn industry and practical application of several generations of the tenants and owners and the successful results of their labours. At the present time early spring work is being pushed on rapidly in every direction, spraying with lime-wash to prevent the eggs of the apple-sucker, or psylla, from hatching being effectively carried out. The larvæ of this pest, if allowed to hatch, enter the newly opened Apple buds and do incalculable damage by sucking the juices from the foliage and flowers.

In the actual cultivation of the soil it is a revelation to the average fruit-grower of other districts to see to what an extent horse-power is employed. So skilfully has planting and subsequent pruning been done that manual labour in tilling the soil has been reduced to an infinitesimal point, and considerable ingenuity is displayed in designing and making implements that will do the greatest amount of cultivation in the shortest time. At The Norrest, near Malvern, Mr. F. Paget Norbury had a plough in use that turned a yard width of soil at one time. This had an ordinary double breast behind, with two single breasts about two feet in front, and turned the soil up to a depth of about four inches to five inches. One journey between two rows of trees, to be cut at right angles by another journey, turned over an amount of soil that would be quite impossible with an ordinary plough, owing to the difficulty of working it under the branches. This plough is only made under Mr. Norbury's directions. Subsequently the owner informed me that springtoothed harrows, specially designed for the purpose, would be used to tear the soil to pieces, so that, by the early days of summer, a fine tilth would be the result. The value of this in conserving the natural moisture of the soil during the hot days of summer can scarcely be over-estimated, and would stand the grower in better stead than unlimited supplies of artificially applied water.

In most districts, bush trees, *i.e.*, those with branches springing from near the ground, appear to be the most favoured, and the diagonal system of planting is almost universally adopted. Thus a tree in one row will be placed midway between its two neighbours in the next row, so that the trees appear in straight lines from whichever point they are seen. The advantage of this in the horse-power cultivation already referred to is obvious, and enables the cross-ploughing that has proved so advantageous. The system of planting one row of a strong or fast growing variety, such as Bramley's Seedling, and the next with a slow-growing sort, such as James Grieve, is also largely

favoured, the growers rightly contending that it is better for the trees and easier for cultural purposes.

In a number of instances single cordon trees, trained at an angle of about 45°, and sloping to the north, are being tried. These are fastened to taut galvanised wires in rows 8 feet apart, and the trees about two feet asunder. In this system of cultivation, however, the Evesham Valley growers are rather behind those of one or two other counties, where cordon trees have been grown on a commercial scale for some years, and apparently have proved successful. Such trees have several points in their favour. They are easily attended to in the way of pruning and spraying, practically all the fruit is of first-class quality, and it is surprising what a vast number of trees can be grown on an acre of land. As maiden trees, *i.e.*, one year old from budding, are usually planted, the cost of trees is not excessive.

The protection of fruit blossom from spring frosts is gradually spreading, although some of the older growers regard it with a good deal of scepticism. The use of smudge fires has been successfully adopted in several instances, and although the initial outlay for apparatus may seem rather expensive, it is spread over a number of years, the actual yearly cost for fuel, naturally, depending on the number of times it is necessary to light the fires. Soft coal is the fuel used, and this creates a dense smoke with a certain amount of heat, the two combined forming an effective protection. A maximum and minimum thermometer, fixed in the fruit plantation, is connected by wires to an electric alarm in the employer's or foreman's bedroom, and when 2° of frost are registered, the mercury makes the connection and sets the alarm going. Funnel-shaped Colorado heaters were used at first, but these are being gradually supplanted by those known as the Norbury, designed by Mr. Norbury, who was the pioneer of the system in the district.

Growers all over the valley are keenly planting the Purple Pershore Egg Plum, which is a purple-fruited form of the older Pershore Egg Plum, a variety that has stood them in such good stead in the past. Though of no use for dessert, it is an excellent variety for preserving, and it is hoped that the purple variety will prove its equal in usefulness and fruitfulness.

The dreaded big-bud mite of Black Currants is being gradually exterminated in two ways. One is the ruthless war that is waged on it during the winter months by rooting out and promptly burning any bush that has swollen, rounded buds, and the other is by spraying about every ten days from mid-March until well into April with an approved insecticide, usually Quassia extract and soft soap. The latter period is when the mites are travelling, and is the only time of the year that they can be reached with insecticides.

A pest that is troubling many growers is silver-leaf of Plum and kindred trees. In common with many other fruit-growing districts, it is largely on the increase in the Vale of Evesham, and, considering how carefully the trees are tended, it would seem that the general belief that spores of the fungus can only be produced on dead wood is erroneous. Certainly this fungus is one that needs fuller investigation and more concerted measures if it is to be checked and finally exterminated.

F. W. I.

THE CHARM OF COMMON SPRING FLOWERS.

A GARDEN in springtime that has been thoughtfully planted possesses a subtle charm not obtained at any other season. How welcome are those flowers that brave bitterly cold winds, occasional sharp snaps of frost, and appear at a time when deciduous trees have scarcely started into growth! The Daffodil, Primrose, Wallflower and Leopard's Bane are but a few of the host of garden flowers that are seen to full advantage at this season. The earliest attempts at spring gardening in this country consisted of ribbon borders, wherein Hyacinths, Tulips, Primulas, Wallflowers and Daisies were planted with marked regularity. Happily, this type of spring gardening is rapidly giving way to the less formal and more natural grouping of flowers. Daffodils now find suitable homes on grassy slopes or in old orchards, and if the soil is suitable, the bulbs increase and flower with greater freedom year by year.

When flowers are left to their own resources, as in the case of those that are naturalised in grass or woodland, it is important that the soil and situation should favour their development. It is well known that the common Primrose of our woodlands will not thrive for any length of time in very light and over-drained soils, yet at the same time Daffodils and Bluebells may flower profusely year after year in the garden where Primroses fail. The question of a suitable selection of spring flowers for naturalising in certain gardens is governed by the surroundings, and the most reliable guide will be found in those flowers that succeed naturally in the neighbourhood.

On a hillside, where either Heather, Broom or Gorse may clothe the surrounding slopes, is surely the ideal site for a Heath garden, the real charm of which is found in the fact that flowers may be had not only in the spring, but in every month of the year. Banks of Broom and Gorse would be quite in keeping in such a place. If the wild Daphne or Spurge Laurel, which is one of the earliest of our native flowers to open, is seen as an undergrowth in neighbouring woods, the chances are that the cultivated and more powerfully scented Daphnes will flourish, providing they are not planted in too dense a shade. Should the Wood Anemone now form a carpet of white to the copses, in gardens near by the Windflowers may be successfully cultivated. If in the vicinity the native Fritillary or Snake's-head is discovered in the pastures—and alas! there now are comparatively few places where it does occur in quantity—it could be induced to take care of itself in the wild garden. It occurs, among other places, in the meadows around Oxford, where children gather the flowers in handfuls. In certain villages of Wiltshire the Fritillary is known by the ugly name of Toad's-heads, from the marbled brownish flowers. The natives say that the colonies of Toad's-heads are always moving, though but slowly, in an easterly direction. Within the memory of some of the oldest inhabitants one colony is said to have moved across several fields. To the natives this is a source of wonder, but it may be accounted for by the westerly wind carrying the seeds in an easterly direction. In the rock garden the perennial Candytuft, Aubrietias, Chionodoxas and Rockfoils are prominent among the good things of the spring.

H. C.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Two Daffodil Chapmans.—I ought to have made it quite clear that Mr. Chapman, whom I alluded to in my "Daffodil Notes" in *THE GARDEN* of March 20 in connection with Mr. Bourne's exhibit, is not Mr. F. Herbert Chapman of Rye, and that the only connection between the two is the similarity of name and taste.—JOSEPH JACOB.

Copper Preserving Pans.—I cheerfully accept N. Cobb's wise caution concerning copper cooking utensils on page 134, issue March 20. Truth to tell, it is so many years since I banished all such toxic terrors (only one superannuated copper kettle remains as an ornamental relic fondly cherished by cook) that I had quite forgotten

and put the underskin through a mincing machine. The pips are placed in boiling water for five minutes, the water is then strained and the pips thrown away, and the water added to the remainder, the whole being boiled for two hours. Sugar is then added, and the composition boiled for another twenty minutes. It seems to me that the above is a more simple method than that recommended by "Anne Amateur."—R. P. B.

Crocuses at Kew.—Few plants denote the return of spring more joyfully than the Crocus. Whether grown in the small villa garden in dozens or spread broadcast in their thousands, as in the grass at Kew, the white flowers of the "cultivated" forms of *C. vernus*, or the golden ones of *C. aureus*, equally give pleasure at this uncertain season. From a cultural point of view many of the Crocuses present little difficulty. In the garden, provided the soil is not too heavy and the drainage is good, if the corms are left

Technical Terms Used in Describing Daffodils.

I hope you will not be too horrified when I tell you that I only read your issue of March 13 on March 19. Dreadful neglect!—at the time, too, when notes are appearing on bulbous matters from the able pen of Mr. Jacob. It is anent one of the said articles that I wish to make a few remarks. On the whole, I am fully in sympathy with what Mr. Jacob says on the subject, but there are one or two points on which I cannot agree. First, under the heading of "Hooded Flowers," he gives as an example Lucifer. Now, is this fair treatment for poor old Lucifer? To my mind, this variety is only "hooded" when it has "caught cold," as it did in the almost arctic temperature in the Royal Horticultural Society's Hall on the night before the Forced Bulb Show. Certainly, after that unfair trial (for indoor blooms), Lucifer did look "hooded"; in fact, one could see in Messrs. Carter's exhibit good blooms not only hooded, but with segments bent over beyond recovery. But when Lucifer has a proper chance to display its charms, it is quite as flat as the average run of the section to which it belongs; while, as every grower knows, although a frail-looking flower, it will outlast nine out of ten varieties with which it may be associated as a cut flower. I cannot give in to Lucifer being a hooded flower! In the next paragraph one reads "claw-shaped or elliptical." It took considerable thought for me to arrive at what was meant by an elliptical flower; then it dawned upon me that the *profile* of the flower was intended. I venture to think that very few people would gain much information by the description of an elliptical bloom, for all the other descriptive terms are applied to a full-face view of the flower. Again, it would seem that every flower not perfectly flat might be described as elliptical, only in some cases the ellipse would be a very narrow one. No; "claw-shaped" I can do with, but "elliptical" seems unnecessarily abstruse. Again, I do not see "eye to eye" with Mr. Jacob when he gives Frank Miles as an example of "twisted" segments. A bloom of Frank Miles is before me as I write, and I have known this variety for a good number of years, but have never looked upon

the segments as twisted. Is not "incurved" a truer description of these folded-in segments? Patience, Mr. Editor—one more item and I have done! "Flanged." This is such a very mechanical term that one seems to associate it rather with railway lines than with flowers, and a "flange" seems to convey a hard, right-angle projection, seldom, if ever, seen in the edge of a Daffodil trumpet. Would not "reflexed," with qualifications such as "slightly," "much," &c., meet the case? If I should have used the term "flanged" in describing Daffodils in my list, I will promise to alter it if Mr. Jacob will accept "reflexed" as a substitute. In conclusion, I would say that the idea of having a greater uniformity of terms wherewith to describe Daffodil blooms is extremely good, and should, if generally adopted, save much confusion in the minds of catalogue-studying amateurs.—J. DUNCAN PEARSON, *Lowdham, Notts.*



• A CHARMING GROUPING OF CROCUSES IN THE GRASS AT KEW.

anyone in these hygienic days still used them.—ANNE AMATEUR.

Customers of Bees, Limited.—We have received a number of orders and enquiries without name and address, or with insufficient address. In some cases the post town only is known by means of the postmark on the envelope; but at the moment there are about twenty orders which we cannot deliver for one or more of these reasons. Some are accompanied by cash.—BEES, LIMITED, *Liverpool.*

Recipe for Orange Marmalade.—My wife has made delicious marmalade from this recipe at a cost of 1½d. per pound in past years, but this year the increased cost of sugar has increased the price of the marmalade. I give the materials in the lowest units: 1lb. of Oranges, 6lb. of sugar, and twelve teacupfuls of water. Wipe the Oranges with a damp cloth, grate off the yellow rind,

undisturbed they multiply freely, while planted as shown in the accompanying illustration, upon a turfy knoll, in the spacious grasslands of Kew, they thrive untouched for very many years, and each returning spring sees their ranks thickened by matured offsets, increasing still further the refulgent splendours of the golden stretch as viewed from many a sylvan glade. Where the alpine garden is available, with its extra sharp drainage and protected nooks for the cultivation of these and similar bulbous plants, many dainty and attractive species may be grown with ease, and January is ushered in with the golden flowers of *Crocus vitellinus*, soon followed by *C. Imperati*, *C. Sieberi*, and *C. chrysanthus*, while the story is then taken up by the purple-feathered cups of *C. versicolor*, *C. tommasinianus* and the varying natural forms of *C. vernus*.—REGINALD A. MALBY.

Mildew and Green Fly on Roses.—Could ask you through your valuable paper to enquire of Mr. Thackeray Turner, who in the issue of February 6 had an article on "Green Fly and Mildew on Roses," how much guano he would add to two pails of water (my Rose garden being small), and if he allows it to be put over the plants when watering, or only round the roots? Also, "Dorking lump lime" is ordinary lime; I must wait after slaking until it is dry before putting it around Roses; if this is good for all Roses; and if there is any danger of harming them? I am a very great amateur. I suppose this is easily seen.—AMATEUR, U.S.A.

Roses and Mildew in New Zealand.—I have been very interested in the correspondence re mildew on Roses. I grow 400 or 500 plants, but I have no mildew. One plant of Her Majesty had it one year, but I put it down to its being an old plant and worn out. We have a long, hot summer, and generally very dry (we have only had 3 inches of rain in eight months). The soil is very rich, with a sandy subsoil—old swamp land. It seems to me as if climatic conditions had everything to do with mildew. In this dry season the colouring of some of the Roses, such as Sunburst, Le Progrès, Mrs. Waddell, Souvenir de Stella Gray and Juliet, has been gorgeous. The last named evidently likes the dry warmth, as the plant looks so healthy and has bloomed better than ever before. I am a fairly successful amateur gardener and take a great interest in THE GARDEN.—M. EDITH TOSSWILL, New Zealand.

The Colouring in Forced Bulbs.—It is fairly generally known that the forcing of a hardy plant in many cases modifies the colour of the flowers, the tendency being to blanch them. Thus, a pale pink summer Chrysanthemum generally develops white, or almost white, flowers. The same thing is noticeable in Tulips. In the case of Tulips, the blanching can be more easily accounted for, as it is the common custom to shade the plants for a time in order to lengthen the flower-stems. I had ocular demonstration the other day, however, that this loss of colour is unnecessary. On entering the shop of a West End Edinburgh florist, I was shown four lots of that lovely double pink Tulip Murillo, purchased from different sources. No. 1 was perfect in colour, the others, respectively, showed loss of colour, till No. 4 was pure white. Again, I was shown different samples of Narcissus poeticus ornatus. With one exception the edging of the crown, as is usual with forced plants, had suffered considerably by the loss of colour. The one exception showed the red edging (the charm of the flower) in a state of perfection. This modification in the colouring of forced flowers is generally supposed to be entirely a question of light; but the grower of the perfectly coloured N. P. ornatus attributes his success to quite another cause, viz., to the fact that while the usual practice is to stand the boxes of bulbs on stages in the forcing-house, he stands them on the earthen floor of the house, thereby keeping the roots cool and in a more equable condition, both as regards temperature and moisture.—CALEDONIA.

Home-Grown Vegetables and Our Food Supply.—The announcement of the stupendous prizes for collections of vegetables offered by the *Daily Mail* will surely be acknowledged by all growers and exhibitors to rank with the various other schemes promoted by that publication in its efforts to arouse sensation, and, to use the

Western phrase, "To lick Creation." Of course, no one will dare to doubt that the finest show of vegetables ever staged will be the outcome of such a record prize offer. The owners of large gardens, where plenty of available space for growing crops exists, and also cottagers who live in the happy environment of pure country air, may rest assured that they will stand better chances of success than their neighbours who live in the vicinity of the smoke and industrial life of our great cities and towns. It is for these thousands of artisans that I would beg a little of your valuable space, in the faint hope that some information may be recorded for any encouragement that may be shown to them—the dwellers of the suburbs.

The purpose of offering such prizes, as the proprietors of the *Daily Mail* are doing, is to stimulate and encourage the growing of vegetables at home, which is both desirable and important at all times, but especially so during this crisis of our national life. Now, a large percentage of houses in Suburbia do not possess large tracts of garden space, but are usually described as being so many feet broad and long. The residents, therefore, cannot hope to do more than grow a few things, certainly not a collection of vegetables for exhibition. It is patent to all that we have around us very many people who are, however, interested and enthusiastic in the small area of gardens attached to their homes, yet these thousands of people are almost entirely lost sight of in the matter of encouragement of their pastimes and hobbies. With regard to the question of increased cost of living, however, these are the very people who feel its effects in every way. It must be granted that every help one can give these residents in the way of friendly advice and good counsel to help them to obtain the maximum of produce from their minimum of space is worthy of commendation.

The suggestion that local horticultural committees should be invited to act with a view to promoting the home-growing of vegetables is a worthy one, and which, if acted upon with true patriotic spirit, cannot fail to accomplish great things. Many local flower shows are being abandoned during this "European stocktaking," yet if their committees got to work in order to obtain funds, so as to be able to award a few prizes to artisans for the best-stocked gardens of vegetables (not allotments), I feel certain an appreciative public would give "strength to their arm." Not only that, but they would at the same time keep in touch with their old members, and perhaps foster an extended patronage for their society and its future shows. In districts where shows are not held, a programme of awards might even be carried out as a parochial matter, and perhaps with advantage, too. The gardeners would, I am certain, fall in with any scheme in which they could help their fellows in industrial life by giving of their counsel and advice to those who desire it, or, by practical instruction if necessary.—W. HOLTOM, *Bearwood, Smethwick, Staffs.*

FORTHCOMING EVENTS.

April 13.—Royal Horticultural Society's Daffodil Show, Vincent Square, Westminster, 1 to 7 p.m.; April 14, 10 a.m. to 6 p.m.

April 14.—The Hereford Spring Flower Society's Show at Hereford; hon. secretary, Miss Alice Barneby, Brockington Grange, Bromyard, Hereford. Royal Horticultural Society of Ireland's Spring Show at Balls Bridge, Dublin (two days).

COLOUR CHARTS: WHAT IS WANTED.

(Continued from page 148.)

EVEN if (as is to some extent being done) the colour description of novelties is based on any particular code or chart, it only happens that when it is compared with an older well-known flower bearing an exactly similar description in the same catalogue it is found to be entirely different, and so the purchaser is just as badly off. Of course, it would be possible to describe Delphinium Electra something like a doctor's prescription, thus: "'Rép. de Coul.," p. 221; Nos. 2 to 3; Centre, p. 11"; and so on. But I can hardly imagine that the recipient of such a catalogue would pay much attention to it.

It therefore resolves itself into a series of questions. First: Who shall undertake the revision of existing colour descriptions and act as an authority in the future for the correct classification according to a recognised standard? Second: Which existing standard shall be adopted or adapted? Third: Whether the various horticultural societies or the trade as a whole would consent to recognise such an authority and act on its decisions? Fourth: What would be the best means of popularising such an undertaking so that nurserymen would think it worth while making a serious effort to bring their descriptions into line? Fifth: Who will pay?

With regard to the first, I think there can be no two opinions on the subject that such effort should be allied to the work of an influential existing organisation, such as the Royal Horticultural Society. Presumably the work would have to be conducted on the laboratory principle, and if a complete revision of descriptions of all the flowers *only* is undertaken, the volume of work during the first two or three years would be enormous. The advantage of associating such work with the Royal Horticultural Society would be that certificated novelties would automatically receive an authoritative description at the time of introduction, and that the records would be available for reference to the vast garden-loving public who have, or will, become members of the society.

With regard to the second consideration, as to what standard shall be adopted or adapted, in my opinion there can be only one, and that is the most comprehensive, viz., the "Répertoire de Couleurs" of 1905, brought up to date and adapted by the addition or correction of those features in which it has been found lacking for English users.

The third question I am unable to answer, but have a shrewd suspicion that it depends on the answer given to the fourth, which is, as far as I can see, as follows: The desire for such an effort on the part of someone does exist among the gardening public. I am constantly coming across evidence of this fact, and once it is realised that the average catalogue description can be referred to a handy, compact and comparatively cheap work of reference, nothing further will be needed to make such a work popular; but the "Répertoire" is too immense. Hundreds of the colour shades given therein can only be required once in a lifetime; hundreds more a very few times. As even these will be required at some time, it would seem desirable that it should be retained as the standard, and that a handier, less comprehensive and cheaper work

should be produced containing those colours most required, but retaining the reference numbers of the parent work. I believe there would (in normal times, of course—not perhaps in the midst of war) be no difficulty in obtaining sufficient subscribers to meet the initial cost of such a work, providing it was recognised that the authority was reliable and permanent.

Mr. Jacob appears to advocate a system whereby many colours are given on one sheet. If this is his opinion, I am afraid I cannot agree with him, because nothing detracts more from the individual value of any colour than having it associated in the vision with others. To get the truth of a colour, one must have it pure. I would rather advocate a system in which every individual shade can be temporarily isolated. I have in mind a simple device that could be adopted, but space forbids explaining it now.

The fifth question, as to who will pay, I must also leave unanswered.

There is just one curious fact outstanding in Mr. Jacob's article—that, whereas he quotes attempts to solve this problem by people who have all foreign *looking* names—"Blanc" and "Kohn" in America, "Klincksieck" and "Valette" in France, and others—there does not seem to have been any attempt on the part of an Englishman in England. And yet one would have anticipated that in this land of beautiful gardens, in which Bacon wrote that "When ages grow to civility and elegance, men come to build stately sooner than to garden finely, as if gardening were the greater perfection," and in which we are annually coming to appreciate more and more the advice of Miss Jekyll to "so use our plants that they shall form pictures in our gardens" (I quote from memory), the demand for such a colour chart would have been recognised and met long ago, but so far we are content to rely on France and America. Is this due to our not having fully arrived at that state of "civility and elegance," or to a commercialism that produces a Royal society reputed to be "rich beyond the dreams," &c., or what is it?

If any evidence of the confusion that exists is required, the following instances should suffice: In THE GARDEN column next to Mr. Jacob's article Phlox Etna is described as "crimson scarlet"; Robinson's "English Flower Garden" gives it as "orange red"; Messrs. R. Wallace and Co.'s catalogue, "deep scarlet, maroon eye"; and Messrs. Gauntlett and Co.'s catalogue, "salmon scarlet." Now take Erigeron speciosus: Gauntlett, "rich mauve"; "English Flower Garden," "purplish lilac"; Wallace, "blue with yellow centre"; while by the same three Astilbe Davidii is described as "rosy purple," "mauve" and "reddish purple" respectively. In the above instances I have only referred to the descriptions quoted. GEORGE DILLISTONE.

BEAUTIFUL SPRING-FLOWERING TREES AND SHRUBS.

THE ALMONDS.

THE group of the Prunus family which is distinguished by the name of Amygdalus is composed of a number of distinct species, some of which grow into trees 25 feet or more in height, while others are mere shrubs. All have distinctly attractive features, but there are two species which stand out conspicuously

is obtained from the bitter kind which is used for flavouring purposes, &c. The type is well known in this country as a bushy-headed tree 15 feet to 25 feet high, bearing in spring a profusion of pretty rose-coloured flowers, each of which is about one and a-half inches across. It is better suited for gardens in the South and West than in the North, and gives excellent results in many places on the outskirts of London.

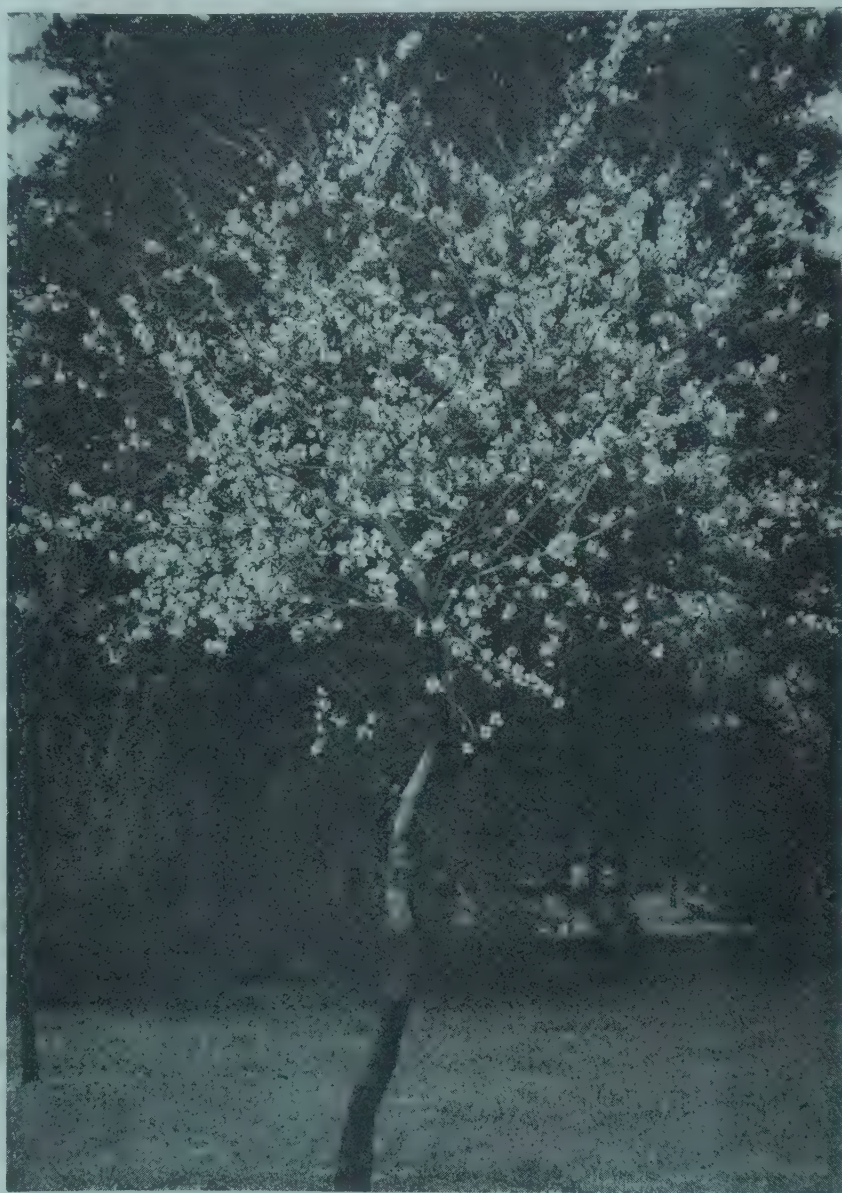
There are many varieties, of which one of the most distinct is macrocarpa. Its flowers are much larger than those of the type, and the fruits are also larger. Pendula is another distinct variety with almost white flowers; while præcox

or persicoides as it is often called blossoms two or three weeks in advance of the type, often being at its best about the middle of February. But the two most important varieties are amara and dulcis. The former produces the bitter Almonds of commerce, from which Almond oil, a poisonous product containing prussic acid, but used in small quantities for flavouring purposes, is obtained; and the latter is grown for the sake of its sweet kernels, which are so popular for dessert and confectionery. An idea of the importance of this tree may be gleaned from the fact that during the year 1913 157,793 cwt. of Almond kernels, valued at £888,138, were imported into the British Isles. They came from various countries, such as France, Portugal, Spain, Canary Islands, Italy, Asiatic Turkey, and Morocco. Spain headed the list of exports with 66,915 cwt., valued at £381,913, followed by Morocco with 37,422 cwt., worth £217,621. The kernels of most of the fruits grown in this country are quite wholesome. All the forms of the common Almond grow freely in ordinary garden soil, and in this country they are usually budded upon Plum stocks.

P. davidiana.—This Chinese species was introduced to Europe in 1865, but it has only been grown widely in British gardens for about twenty-five years. It will probably attain the average height of the Almond in this country, although most of the trees met with are below 20 feet in height. The branchlets are long and slender, and from axillary buds on the leafless branches

attractive white or pinkish flowers, according to the variety, are produced early in the year, sometimes as early as the third week in January, sometimes as late as the first week in March. Fruits are not produced here, probably by reason of inclement weather at flowering-time. During a period of mild weather in February it is often a very beautiful object, but, unfortunately, the flowers are sometimes spoiled by frost or by cold winds. The white flowers of the type make it an excellent subject for planting against a background of evergreen foliage.

P. nana.—Several common names, such as Dwarf Almond, Russian Almond and Crimean



A YOUNG TREE OF THE COMMON ALMOND (PRUNUS AMYGDALUS) WITH A BACKGROUND OF EVERGREENS.

among others, both by reason of their decorative and economic value, these being Prunus Amygdalus (the common Almond) and Prunus persica (the Peach). In the following notes attention is directed to these and other species which are worthy of consideration for garden decoration.

Prunus Amygdalus.—This species is widely distributed in the Mediterranean region throughout Southern Europe to Asia Minor, where it not only forms an ornamental flowering tree, but is of great commercial value by reason of its fruits, the kernels of which are extracted and used for various purposes, those of the sweet variety being used for dessert and confectionery, while an oil

Almond, are associated with this charming little plant. It may be justly called a miniature representative of the common Almond, for although a dwarf bush often less than 3 feet in height, its flowers, foliage and fruit resemble those of the ordinary Almond on a reduced scale. A native of Southern Russia, it was introduced to this country two and a quarter centuries ago; but, like many other choice shrubs, its merits were, comparatively speaking, unknown a quarter of a century ago. Its rosy red flowers are about three-quarters of an inch across and borne freely from axillary buds on the previous year's growth. There are several varieties, the two best being *georgica* and *essleriana*. The last named has very fine and richly coloured flowers. The white-flowered variety *alba* is decidedly inferior to the type. *P. nana* rarely perfects fruits in this country, and is sometimes found difficult to propagate. It, however,

rose; *flore sanguinea pleno*, red; *Clara Meyer*, rose; *magnifica*, crimson; and *flore rubro pleno*, red. Although in each case the flowers are more or less double, most of the varieties produce fruits, and in some seasons a good crop. These fruits are quite palatable, and are well suited for making into jam. The purple-leaved variety *foliis rubris* bears, perhaps, the best fruits. The home of the Peach is considered to be China, but it has not been found in a truly wild state, many of the apparently wild trees being doubtless escapes from cultivation. All the double-flowered varieties are excellent for forcing.

***P. triloba*.**—This Chinese species is better known by its double-flowered variety than by the type, as it is a much superior plant for decorative gardening. Bushes of the single-flowered form may grow 12 feet or more high, and they bear pinkish flowers nearly an inch across during late

HARDY PRIMULA: NEW AND OLD SPECIES.

PLANT collectors in the last few years appear to have spent a good deal of their time in collecting Primulas. From Western China and the Himalaya new species have poured into this country at such a rate that it is difficult to keep pace with them. At the Primula Conference, held in London under the auspices of the Royal Horticultural Society last 1913, no fewer than 140 species were recognised from China alone. Needless to say, many of these are of little use as garden plants, while some of them are tender; nevertheless, a fair percentage is destined to hold a place in the gardens of this country.



PRIMULA ROSEA, A DELIGHTFUL PLANT FOR THE STREAMSIDE.



PRIMULA SIKKIMENSIS, THE HIMALAYAN COWSLIP.



PRIMULA DENTICULATA, GROWING AS A CREVICE PLANT.

grows quite well from layers, which is an infinitely better means of propagation than the alternative method of grafting upon Plum stocks.

P. orientalis is only suitable for walls or for borders in the warmest parts of the country, as it is a native of South-Eastern Europe and Western Asia, and too tender for general culture in Great Britain. Its greatest attraction lies in its silvery leaves, the flowers being borne with less freedom than in other species, and the rosy colour being less attractive than in the last-mentioned species.

***P. persica*.**—This is well known as the parent of the cultivated Peaches. All the forms of fruiting Peach are very beautiful when in flower, but for decorative gardening they are inferior to the many varieties which bear double flowers. These varieties may have white, rose, red or crimson blossoms, a good selection of varieties being *flore albo pleno*, white; *flore rosco pleno*,

March or early April. The double-flowered form produces a profusion of delicate rose-coloured blossoms, each of which is well over an inch in diameter. The best results are usually obtained by cutting the flowering branches back as soon as the flowers fade. Long shoots are then formed during the summer, which the following spring bear flowers from end to end. It is useful alike for bushes in the open or for planting against walls, while it is one of the best shrubs for forcing for conservatory decoration in February. The Almonds are seen to best advantage when planted so that a background of evergreen trees is provided, as shown in the illustration on the opposite page. If silhouetted against the sky, the delicate Apple-blossom pink of their flowers is scarcely discernable. They ought not to be planted so that a house with red-brick walls forms the background, the pink blossoms clashing badly with red. W. D.

At Clandon Park, Surrey, a beautiful glade has been converted into what is aptly called the Primula Dell. The undulated woodland, with winding paths and deep, retentive soil, provides the ideal surroundings for a natural Primula garden. In May *P. rosea*, colonised by the streamside, flowers in profusion, and the same may be said of *P. denticulata*, grown in large stretches, and mingled here and there with the bright yellow flowers of the Leopard's Bane. Polyanthus in varied hues flower well, and *P. japonica* gives promise of an exceptional display. The Primulas to follow are *frondosa*, *pulverulenta*, *sikkimensis*, *bulleyana*, *capitata* and *Poissonii*. The last named is a gem at Clandon Park, and flowers well from May until the autumn. The writer will not readily forget the fine effect created by the flowering of this species in November last, when all other Primulas had long ceased to

flower. Generally speaking, Primulas are best planted after flowering, while seeds may be sown as soon as they are ripe. It is as yet a little early to speak with any degree of certainty regarding the hardiness of some of the new Primulas, but the following list is an attempt to bring together a number of new species that are destined to become great favourites, together with some of the older and better known garden Primulas.

P. beesiana.—A fragrant species introduced by Messrs. Bees of Liverpool about seven years ago. The flowers are of a purple hue with a yellow eye. It was found growing wild by Mr. G. Forrest in the moist meadows of Yunnan. Height, 2 feet to 3 feet; hardy.

P. bulleyana.—Another grand species from Western China discovered by Mr. G. Forrest. It produces whorls of rich golden yellow flowers, shading on the outside to buff apricot. It is easy to grow, and does well at Clandon Park in the shade near a running stream; it is also hardy in Scotland. When crossed with *P. beesiana* it has given rise to a race of hybrids with coppery red flowers, of which Leddy Pilrig is an example. This sturdy hybrid attains a height of 2½ feet, and the flowers are borne in seven or eight whorls to an inflorescence; the calyces are coated with farina.

P. capitata.—This species, having round heads of rich violet flowers, resembles a refined form of *P. denticulata*. It is a charming Primula for the rock garden, and will thrive as a crevice plant in partial shade, providing it can root into a moist compost of grit and loam. Unfortunately, its value is depreciated owing to its tendency to die soon after flowering. However, it seeds freely, and may easily be replenished. It flowers in June and in early autumn.

P. cockburniana.—The flowers are of a rich orange vermillion, borne in whorls on slender stems. It is short-lived, and is generally regarded as a biennial, although it is perennial in some gardens. It seeds freely, and self-sown seedlings are often produced around the parent plants. It needs a well-drained, loamy soil and a warm position, although it is hardy in Scotland. By crossing with *P. pulverulenta* some wonderful hybrids have been obtained, of which Unique and Lissadell Hybrid are best known. The variety Excelsior, with crimson scarlet flowers borne whorl upon whorl, is the result of crossing Unique with cockburniana.

P. cortusoides.—A beautiful plant, with clusters of deep rosy flowers and lobed leaves covered with a silky pubescence. It is sometimes met with in gardens under the name of Sieboldii. It is easily grown in light garden soil, but it should be sheltered from cold winds.

P. denticulata.—One of the finest of all the hardy Primulas. It is a native of the Hima'aya, and is very free flowering. At Clandon Park it is grown in stretches in shady glades, making

in May a display of unusual splendour. The heads of bloom vary in colour, but are mostly of lilac tone. The variety cashmeriana, with deep violet flowers, is worthy of special mention.

P. farinosa.—our native Bird's-eye Primrose, has small rosettes of silvery leaves and umbels of rosy lilac flowers with a conspicuous yellow eye. It is found wild on damp, grassy slopes in the northern counties of Scotland. Like many other British plants, it is no always an easy subject to cultivate. Limestone chips and old mortar rubble should be mixed with the soil.

P. frondosa.—This charming Thracian species resembles *P. farinosa* in colour and habit of growth,

poorer-coloured flowers should be annually weeded out to keep the strain as good as possible. The flowering season is from May till September. When once established in a damp position it will often increase freely from self-sown seed.

P. Juliae.—This new introduction from the Caucasus, with rosy red flowers and of Primrose habit, has created a good deal of interest. It is a moisture and shade loving plant that promises to be a great favourite when better known. It flowers in April and does not exceed 3 inches in height.

P. knuthiana.—A new hardy species recently sent home from Northern China by Mr. W.

Purdom. Its nearest ally is probably the well-known *P. frondosa*, of which it appears to be a glorified form. It is hardy and may be increased from seeds.

P. littoniana.—A distinct Primula, with flower-spikes resembling the Grape Hyacinth. It has proved hardy in Scotland when grown on well-drained loamy soil. It was collected by Mr. G. Forrest in China in 1908.

P. marginata.—Probably the best of all the alpine Primulas. It is small-growing, with leathery leaves margined with white farina, and flowers of a soft lavender colour. It is an ideal crevice plant for the rock garden.

P. Maximowiczii.—A remarkable novelty from Northern China. The drooping flowers are cardinal red in colour and borne in whorls on a stout scape rising 18 inches or so from a rosette of lanceolate leaves. It is sweetly scented and seeds freely. Moreover, it is hardy and will thrive in a similar position to *P. japonica*.

P. Poissonii.—Valuable for spring and autumn flowering. A rich, damp soil and a half-shady position suit it best. The flowers are reddish purple. In habit it is like *P. japonica*.

P. pulverulenta.—One of the best of Wilson's introductions from China. The flowers are of an exceptionally rich ruby crimson, borne on stout stems 2 feet to 3 feet in height. It seeds freely, but its white variety, Mrs. Berkeley, does not. It may be grown under similar conditions to *P. japonica*; it will also thrive in a much drier position.

P. Purdomii.—One of the most recent introductions from Western

China. The flowers are pale lilac and delightfully scented, while the foliage is densely covered with white mealy farina. It is too early to say if it can be increased from seeds, but there is every reason to hope that it will prove hardy.

P. Reidii.—A rare species of refined appearance. The drooping ivory white flowers somewhat resemble in shape those of the Soldanella. In the Edinburgh Botanic Gardens it is grown with marked success from seed sown in February or March. It does best when grown in a cold frame; if tried in the rock garden, a sheet of glass should be placed overhead to throw off excessive moisture.



A VIEW IN THE GARDENS AT PENJERRICK, NEAR FALMOUTH, CORNWALL. NOTE THE SIZE OF THE DRACÆMAS. (See page 163.)

while it needs much the same treatment as the Bird's-eye Primrose.

P. Forrestii.—A sweetly scented species, reminiscent of the fragrance of the Cowslip. It should be planted in bold masses, when the golden yellow flowers are seen to good effect. Although quite hardy, it is not an easy subject to cultivate. It has been grown successfully on dry, rocky places and on a retaining wall.

P. japonica.—This well-known Primula is indispensable for planting by the side of streams or in moist parts of the wild garden. In colour it varies from dark purple to pale rose. The

P. rosea.—This is the gem of the whole race. It is best grown near the water's edge in gritty soil. The flowers are of a brilliant rose, and the varieties *splendens* and *superba* are worthy of special note.

P. sikkimensis.—Aptly called the Himalayan Cowslip. It loves a deep, well-drained but moist soil and a shady place. The leaves disappear in winter and the plants remain dormant, but at that time they must not be molested or overlooked. Propagation is effected by division in spring or autumn, or by seed sown as soon as it is ripe.

P. Veitchii.—A hardy species belonging to the same section as *cortusoides* and *Sieboldii*.

foliage is attractive owing to its beautiful covering of white farina. C. Q.

AN INTERESTING CORNISH GARDEN.

To those unacquainted with the mild climate of the South-Western Counties of England, the gardens scattered about so freely in Devon and Cornwall, and particularly in the latter county, come as a great surprise when seen for the first time. Plants flourish there outdoors which need the protection of a greenhouse in the London and less favoured districts, with the result that the gardens always present a semi-tropical appearance. The illustration on page 162, from a photograph

Cytisus fragrans, growing beside the house and quite outdoors, produces its myriads of flowers each spring. Those who only know this plant by the small pot specimens sold in the London markets would scarcely recognise it in its shrubby form at Penjerrick. Another tree of considerable interest is *Laurelia aromatica*. This is about fifty feet high, and in all probability the best specimen of its kind in this country. It has smooth, Laurel-like leaves with dentate margins, and, when bruised, these emit a pleasant and powerful fragrance. *Magnolia Campbellii*, *Crinodendron Hookeri*, *Embothrium coccineum*, *Anopterus glandulosa*, large specimens of *Eucalyptus globulus*, *Fitzroya patagonica* and a large



BORDERS OF MIXED FLOWERS, WITH PINK MALLOWS AND OTHER ANNUALS USED FOR A TEMPORARY DISPLAY.

The numerous flowers are deep rose, and borne in umbels on erect spikes. The leaves are soft, like those of *P. mollis*. It requires plenty of leaf-mould in the soil.

P. Winteri.—An exquisite and fascinating species from the Himalaya. Although a new introduction, it is already to be seen in many gardens. It is hardy in the South of England, but it is advisable to give it protection in cold localities. The flowers are of large Primrose size, varying from pale to deep mauve. It is as profusely flowered as the Primrose, and the

taken in the gardens at Penjerrick, about three miles from Falmouth, will give readers some idea of the vegetation that thrives there. *Dracenas* and *Rhododendrons* are a great feature, the trunks of some of the former being at least 15 inches in diameter.

Mr. Robert Fox, the owner of these gardens, is a great *Rhododendron* enthusiast, and many new and beautiful varieties have been raised there. A very fine tree of *Podocarpus chilina*, 30 feet high and about 20 feet in diameter, never fails to attract the attention of visitors; and

Camphor Tree, quite 20 feet in height, are only a few of the many interesting trees and shrubs that the privileged visitor will find thriving at Penjerrick.

ANNUAL FLOWERS IN MIXED BORDERS.

THE value of annual flowers in mixed borders can scarcely be over-estimated. Without them it would be well-nigh impossible to fill the gaps caused by the passing to rest of such spring flowers

as Leopard's Bane, Daffodils and Tulips. There are two ways of using these annuals in the mixed border. One is to sow seeds of such kinds as Nemusias, Stocks, Asters and Antirrhums in frames and subsequently plant the sturdy seedlings where they are to flower; and the other, to sow the seeds of the more hardy kinds during April wherever they are needed to grow and blossom. Thus at the present time seeds of Clarkias, Godetias, Leptosiphon, Pot Marigolds, Cornflowers, Pink Mallows, Larkspurs, Nigella, Night-scented Stock, annual Chrysanthemum, Candytuft, the fragrant Mignonette and, a few weeks later, the dwarf Nasturtiums may well be sown between the bulbs named, or, indeed, between almost any early flowering plants that find a more or less permanent home in the mixed border. In the portion of border shown on the right of the illustration on page 163, the charming Pink Mallows have been successfully used, and add charm and colour where otherwise annoying blank spaces would have existed.

TULIP AND DAFFODIL NOTES.

BY THE REV. JOSEPH JACOB.

Forced Darwin Tulips in Holland.—

Readers are doubtless well aware that within the last few years it has been found that certain varieties of Darwin Tulips with appropriate treatment can be had in flower very early, not perhaps at the same time as those dwarfier kinds which have always gone by that name, but long before we would have thought it possible in the first days of their introduction. William Copland may be cited as the most striking example of what can be done in this respect. Messrs. James Carter and Co. startled us in January of last year by showing some vases of a pretty, long-stemmed lavender Tulip labelled Sweet Lavender. It appeared again in February and, if my memory serves me, also in March; but each time the blue tone seemed less pronounced and a redder one began to predominate. Those "in the know" were well aware that Sweet Lavender was but William Copland garmented in the fine linen of those who live in glass houses. The heat and the glass had brought about a wonderful transformation, for, outside, William Copland was one of the old Darwins that were only hanging on by their eyelids.

Experiments on a large scale took place in Holland both in the winter of 1913-14 and in that of 1914-15. Thanks to Messrs. de Graaff Brothers of Leiden and to Messrs. E. H. Krelage and Son of Haarlem, I am in possession of the results of some of the above-mentioned trials. About a month ago I had two letters from my friend, the head of the latter firm, giving an account of what happened in his case in this last season. The contents are so very interesting and instructive that I feel sure many readers will like to know what they were, and as I have Mr. Krelage's permission to make any use I like of his letters, "here goes."

One of the prominent fixtures of the Dutch Bulb Growers' Association is their "prepared" Hyacinth exhibition, which last year (1914) was

held on December 23. An attempt was made to have some Darwins in bloom then, but it was a failure. During January the firm obtained some excellent flowers, "but the first practical results of high-grade faultless blooms without failures" were produced in mid-February. On the 15th of that month the following were shown: Anton Mauve, Charles H. Marot, Crépuscule, Duchess of Hohenberg, Fra Angelico, Frans Ha's, Giant, Harry Veitch, Leonardo da Vinci, Othello, Red King, Wally Moes and William Pitt.

On the 22nd, a week later, forty-seven varieties were exhibited, viz., those mentioned above and the following additional ones: Ariadne, Calypso, Centenaire, Electra, Eugène Delacroix, Feu

Gudon, Jacob Maris, King George V., Queen Emma, Mme. Banois, Madrazza, Millet, Mr. Farncombe Sanders, Mrs. Cleveland, Mrs. Potter Palmer, Niobe, Nora Ware, North Dakotah, Oregon, Ouida, Paris, Parthenope, Pomona, President Taft, Princess Mary, Princess Elizabeth, Prince of the Netherlands, Prince Eugen, Remembrance, Sir Trevor Lawrence, Thérèse Schwartz, The International, Vitellius and Weber. So on February 28 last eighty-five varieties were on view at one time, each one in excellent condition, with firm, straight stems.

Mr. Krelage says at the end of his second letter: "It is a pity you cannot come and inspect them personally, but such excursions cannot be recom-

mended for the moment." Well, I hope this war will not go on for ever. Another year perhaps there will be no hostile submarines in the North Sea, and then it would be very pleasant to have an invitation. Possibly other Tulip people might like to come, too. Some of them already have heard of the Trianon at Amsterdam!

In Vincent Square only one Darwin exhibit was staged up to the end of March. On the 16th Messrs. Waterer, Sons and Crisp put up a small collection of sixteen varieties, together with a few Cottage sorts. The stems were rather weak, and this defect was not minimised by the somewhat bald arrangement of the group. The list of varieties is interesting when compared with the Dutch ones: Admiral Togo, Edmée, King Harold, Marconi, Margaret, Mrs. Potter Palmer, Mr. Farncombe Sanders, Nora Ware, Psyche, Rev. H. Ewbank, Salmon King, Sweet Lavender, The Sultan, Suzon, Tak van Poortvliet and Velvet King.

One often has to go away from home to hear the news. In the *Revue Horticole* of Paris for March 16 (which paper, by the way, I am heartily glad to see getting into its stride again after its temporary absence from the track) there is a list of some of the early Tulips shown at Haarlem on December 23 last. By the side of the Duc van Thols and Proserpines were Fred Moore, Mrs. Elwes, King of the Yellows, Mon Tresor, van Schalken, Le Matelas, Vesuvius, Rembrandt, Brilliant Star and Lady Borell; and in doubles, Toreador, Couronne d'Or and Salvator Rosa.

Royal Horticultural Society's "Daffodil Year Book."—"To be or not to be" has been the question. The Council have, however, finally decided that it is to be in 1915 "as usual." I am again to be its godfather. I have one or two special wants in connection therewith—first, a

good likeness of the late Rev. G. P. Haydon; and, secondly, any number of short paragraphs of from six to ten lines of print on small matters or incidents that would be of general interest to the fancy. I made a similar request last year, but I regret I had no response. A chapter of odds and ends would make interesting reading; so, readers, please think of the Year Book when any chickens are hatched.

Daffodil White Lady.—Many people are of opinion that the name of Engleheart will go down to posterity coupled with this variety more than any other. It is a splendid all-round flower, and worthy to rank beside Emperor and Barrii conspicuously. I believe it is now exactly twenty-one years



THE NEW SILVER "BARR" CUP FOR DAFFODILS.
(See page 165.)

Brilliant, General de Cordous, Glory, Gretchen, Gryphus, Jhr. Schorer, La Fiancée, La Tristesse, La Tulipe Noire, Lioba, Mme. Virnot, Mauve Clair, Minister Röell, Miranda, Mystery, P. de Commynes, Prince of Wales, Raphael, Salmonea, Sierrad van Flora, Suzon, The Sultan, Venus, Vespuccio, Viola, W. A. Viruly Verbrugge, Whistler, Zephyr and Zulu.

There was no committee at Haarlem on March 1, but on February 28 Messrs. Krelage and Son had a private view in one of their warehouses, where these additional thirty-eight sorts were on view: Aïda, Bartigon, Blushing Bride, Clara Butt, Claude Monet, Dante, Edmée, Etna, Europe,

since it was introduced to the public, and it is still going strong. My congratulations to her raiser on her coming of age, *but* it is another milestone past.

[Regarding the early Darwin Tulips mentioned by Mr. Jacob, from what he tells us it is only those who can give sufficient bottom and top heat who can hope to have them in good condition so very early.—ED.]

A NEW CUP FOR DAFFODILS.

THE illustration on page 164 represents the silver cup, value 7 guineas, that Messrs. Barr and Sons are offering at the following shows this year, one cup to go to each show: The Royal Horticultural Society's Show at Vincent Square on the 13th and 14th inst.; the Hereford Spring Flower Society's Show on the 14th inst.; and the Midland Daffodil Society's Exhibition on the 21st and 22nd inst. The design of this cup is excellent, the Daffodils, shown in relief, being well executed.

SOME BULBS FOR SPRING PLANTING.

IN a great many country gardens there is a demand for plants that flower in early autumn, and although there is a goodly host of herbaceous kinds that naturally flower at that season, those with bulbous or tuberous roots are more or less neglected. If we eliminate the Montbretias, Gladioli and late-flowering Lilies such as *speciosum*, very few of the kinds that can be, and often are best, planted in spring will be found in most gardens. One cannot help thinking that this is a mistake. Montbretias and Gladioli, to which reference has already been made, are too well known to need extended comment; it will suffice to remind those who would grow them that the end of March or early in April is a good time for planting. There are many beautiful varieties in each family, particulars of which can be obtained from any bulb catalogue, and they ought not to be placed directly in contact with raw manure at the time of planting. Those who appreciate blue flowers in autumn should get the varieties Blue Jay and Baron von Hulot, which are the best Gladioli of this colour. One of the best bulbous flowers to put in just now is *Hyacinthus* or *Galtonia candicans*. The bulbs can be purchased quite cheaply, and should be placed from 4 inches to 6 inches below the surface. If the soil is mainly clay, it is advisable to spread some sharp sand under and around the bulbs, and this applies to most other kinds mentioned. *Hyacinthus candicans* attains a height of 4 feet to 6 feet, and the upper portion of the flower-stem is bespangled with glistening white, bell-shaped blossoms. Massed in an open spot in the shrub border, in the herbaceous border, or in beds of Azaleas or other spring-flowering shrubs, this plant is very effective, and it is equally good for cutting.

The Peruvian Lilies, or *Alstroemerias*, are bulbous flowers that we see too little of. It is true that they are not well adapted for very cold soils or situations, but in all moderately warm gardens such kinds as *chilensis* and *aurantiaca*, with their several variations, will give a good return in the way of curious-shaped and wonderfully mottled flowers. The bulbous roots need to be planted at least 9 inches deep and sanded around as advised for *Hyacinthus*. In warmer districts *Alstroemeria pelegina*, a very beautiful species, may be grown. The *Belladonna Lily*, with its large, rose pink

flowers, is always greatly admired when seen in flower, and spring is a suitable time for planting the bulbs. These need to be placed at least 9 inches below the surface, and must be accommodated under the south wall of a warm greenhouse. When visiting Carrow Abbey during the autumn of 1912, I saw a fine display of this noble plant in a narrow border under the wall of one of the plant-houses, and the dainty little *Zephyranthes candida* was used as an edging. This is a low-growing bulbous plant with dark green leaves and fairy-like white flowers, and the effect created by the *Belladonna Lilies* and these was very charming. As the *Zephyranthes* can also be planted now, those who have suitable borders may care to arrange for a similar effect next autumn. I ought to mention, however, that the *Belladonna Lily* does not usually flower well the first year it is planted.

Although the corms of most hardy *Cyclamen* are planted in autumn, there are two which may be put in now, viz., *C. neapolitanum* and *C. europæum*. The former has rosy pink or white flowers, and the latter, dainty little blossoms of crimson purple hue. Both flower in autumn, appreciate overhead shade, and some old mortar or similar lime containing material in the soil. Two inches is quite deep enough to plant these. *Ranunculuses*, at one time the treasures of many of our best gardens, are seldom seen nowadays, yet they embrace such vivid Oriental colours as we get in few other autumn flowers. The grotesque-looking roots are best planted in March or early April, in an open spot towards the front of the border, and if some well-decayed cow-manure can be mixed with the soil, the plants will greatly appreciate its cool and nourishing properties. Poppy *Anemones* may also be planted at this season where late flowers are desired, although many prefer to consign them to the earth in autumn for an early summer display. For a sunny bed or border, and where the soil is well drained but of a nourishing character, a few at least of the *Tigridias* ought to find a place. They have gorgeous flowers of many bizarre hues, those in which yellow predominates being, perhaps, the most effective of all. The bulbs ought to be planted about three inches deep early in April, and lifted again after all the leaves have faded. H.

NOTES ON VEGETABLES.

THE month of April is an exceptionally busy time in the kitchen garden; any delay in sowing or giving the necessary details of culture, such as thinning the surplus plants of Carrots and Parsnips, means a much impoverished crop.

Keeping the soil stirred, too, among growing crops is a most important item in accelerating the growth, hence under no circumstances should this detail be neglected. The staking of Peas is another point meriting prompt attention. If the haulm is allowed to fall on one side for the want of support, the growth afterwards is crippled. An early earthing up of the plants when 6 inches high does much to support the haulm at the base.

Broad Beans.—Make the last sowing in the open of either a Longpod or a Windsor variety, allowing rather less space than at the previous sowings, as the plants are not quite so robust in growth as those from seeds sown earlier. Those raised in boxes should be planted out in double rows, as usual, allowing 10 inches between the rows and 9 inches between the plants; 2 feet 6 inches from one double row to another will suffice.

Broccoli, Cauliflowers, Leeks and the various Kalcs and winter greens should be sown in the open on a piece of well-prepared ground. If the soil is dug at the time of sowing, well soak it the day previous, which is much better than watering the seed-beds afterwards. Break the soil quite fine on the surface and sow the seed thinly to avoid overcrowding of the plants, which is fatal to ultimate success. After lightly covering the seed, sprinkle the surface with wood-ashes, which are a preventive of attacks by Turnip fly. Protect the beds with netting to prevent birds pulling up the tiny seedlings, which they are apt to do when peeping through the soil.

Cardoons.—The growing of this vegetable is not nearly as common as its merits deserve, and especially when we consider how easy the plants are to produce. Prepare a trench as for Celery and sow the seed thinly in a drill in the centre, thinning the plants to one in a space of 2 feet when large enough to handle.

Carrots.—Now is a good time to sow the main crop. Of all vegetables, none pays better than this for a thorough preparation of the soil, especially if it is stiff and contains many stones. Without free access for the tap root, Carrots cannot be shapely and large. A few days previous to sowing, deeply fork over the ground, thoroughly breaking the clods. Rake the surface fine, and sow thinly in drills 15 inches apart for the large-growing sorts like New Red Intermediate or Long Red Surrey. Shorter sorts may have 3 inches less space. Cover the seed with wood-ashes, raking down the surface smoothly and covering the wood-ashes with the soil from the drills.

Brussels Sprouts.—The plants from the early sown batch will now be ready for putting out into their permanent site, lifting each carefully with a ball of earth attached to the roots. Plant in rows 2 feet 6 inches apart and allow 2 feet between the plants. Where space can be afforded, a yard apart is none too much, especially where the soil has been heavily manured. If the plants are still in the seed boxes or pans, transplant them into a cold frame or other boxes in a light compost, and hasten on the growth by keeping the frame closer for a week or two. The stouter the plants are when put in the open, the better is the prospect of success.

Lettuce Plants wintered thickly in cold frames can now be put out on a warm border, covering the soil about each plant with finely sifted coal-ashes as a deterrent to slugs, which are partial to the succulent leaves.

Asparagus-Beds should now have attention. Keep them free from weeds, and lightly and carefully fork over the surface 2 inches deep if the soil is inclined to be of a close, retentive character. Afterwards give a dressing of common salt at the rate of 3oz. to the square yard. Last year's sown or planted beds can be much improved in growth if the plants are well saturated with liquid manure or sewage water during the months of May and June. In newly planted beds the point is to induce the plants to make as much growth as possible, and instead of cutting any stems, allow all to grow and mature for the first two years. Some support should be given to the stout growths to prevent their being blown about and often broken, which is detrimental to success. Short, bushy Pea stakes thrust into the soil among the plants answer capitally. Failing these, a wire should be stretched along the rows 2 feet high, to which the stouter growths can be secured.

Swanmore, Hants.

E. MOLYNEUX.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Strawberries in Pots.—Strict attention must now be given to Strawberry plants growing under glass. It is almost impossible to give them too much water at the roots, and the plants which are swelling their fruits will require liberal applications of stimulants till the fruits begin to colour. The foliage also must be vigorously syringed two or three times a day. Plants growing in Peach-houses or vineries should be moved to a cooler house when the berries are ripening. The plants which are still in their winter quarters must be examined regularly to see if they need water, giving them an occasional dose of manure-water.

Cherries in Pots.—When the fruits have set, the trees will require some form of stimulant, but they must not be overdone in this respect till growth is more active. Do not attempt to force the swelling of the fruits, especially by artificial means. Admit plenty of air during favourable weather, using both top and bottom ventilators, and leave them slightly open during the night. Look out for the small grub, which will be found curled up in the leaves.

Early Pot Vines.—When the berries commence to colour, the atmosphere must be kept less moist and more air should be admitted, leaving the top ventilators open a little during the night. The roots must still be liberally supplied with water, but manures should be gradually withheld as the berries approach ripeness. The temperature must still be well maintained, but excess of fire-heat should be avoided while the Grapes are ripening.

Plants Under Glass.

Pot Roses.—As the earliest plants pass out of flower, they may be removed to a sheltered position outdoors. The climbing varieties can now be forced gently into growth. These will be well rooted, and must be well supplied with stimulants, or the colour of the flowers will be poor. Ventilate the houses carefully when cold winds prevail, or mildew will quickly spread.

Sweet Peas in Pots.—Plants which are showing their flower-buds will require abundance of water. Liquid manure and some approved fertiliser must also be given frequently. Keep them growing in a cool, airy house, and when in flower shade them from bright sunshine.

Bouvardias.—Move the young plants into 3-inch pots when large enough. Give them a position near the glass in a moderately warm house. The shoots will require stopping two or three times to encourage a bushy habit. When the plants have been transferred to their flowering pots, they must be gradually hardened off, eventually plunging them in ashes in a cold frame.

Pelargoniums.—The plants which are being grown for flowering in the autumn and winter must have their tops pinched out. A position on a shelf in a cool house will suit them till they are placed outdoors. The fancy kinds must be carefully staked. When these are showing their flower-buds, they should be liberally supplied with stimulants.

The Flower Garden.

Forced Bulbs.—Many Tulips and Narcissi which have been grown in pots may be planted next autumn in the wild garden. In the meantime they can be placed close together in a sheltered position and kept supplied with water till the foliage has died down. Astilbes which have been forced may also be made use of for planting by the margins of streams or ponds.

Bamboos.—Large clumps of Bamboos may be improved by a judicious thinning of the growths. This work can be done now, before the young shoots have made much progress. The present month will be suitable for replanting Bamboos. The ground must be thoroughly prepared by deep digging and manuring, and the work of replanting should not be done till the soil is in a suitable condition.

The Hardy Fruit Garden.

Peaches and Nectarines.—Disbudding of these may be commenced as soon as the shoots are large enough to handle. At the first operation about half the shoots can be removed. Commence

at the top of the trees, and bear in mind to leave a well-placed shoot as near to the base of this year's fruiting wood as possible. When the final disbudding is completed, there should be one growth at the base and one at the point of the shoot, unless it is necessary to leave more to take the place of old, worn-out branches next season. The final disbudding of young, vigorous trees should not be done quite so early as the old-established ones.

Apricots.—Where the fruits have set thickly, some of those which are badly placed may be removed at once. The general thinning of the fruits must not be done till it can be seen which are going to swell. Some of the surplus growths may now be removed, but make sure that sufficient are left to form spurs. These will require to be pinched when they have made several leaves. Where there is room to lay in a young growth, one should be left for this purpose.

The Kitchen Garden.

Potatoes in Frames.—Plenty of air must be admitted to the frames, or the haulm will become drawn and weak. On favourable days the lights may be entirely removed. Cover the glass with mats at night when frost is imminent.

Cauliflowers.—The earliest plants in pots will soon be ready for planting out. Remove the lights whenever the weather will allow, so that the Cauliflowers may be thoroughly hardened off before planting them out. A well-cultivated piece of ground in a sheltered situation ought to be selected for their reception. Should the weather be dry after planting, they must be regularly supplied with water.

Seakale.—The thongs which have been prepared for planting will now be ready for the open. Plant them in rows 2 feet apart, allowing 1 foot between the plants. The sets must be buried about an inch or so beneath the ground.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

Plants Under Glass.

Cyclamen.—As the plants pass out of flower, water should be gradually withheld. A sudden stoppage of moisture would injure the corms for another season. Stand the plants on an ash-bed in a cold frame and ventilate freely.

Clerodendron fallax must be potted on as the plants develop. Use a fairly rich compost for this potting and keep the plants growing in a very humid, warm atmosphere. The syringe should be used unceasingly to keep red spider in check.

Gesneras.—Some of these may be started to keep up the display in the flower-house. Start in the stove in a light compost in which there is plenty of peat, leaf-soil and sand.

Tree Carnations.—With the lengthening days and greater sun power the quality of the blooms is greatly improved. Still endeavour to maintain a night temperature of 50° to 55°, keeping the atmosphere as buoyant as possible. After this date very little artificial heat will be required, unless on very damp and cold nights. Young plants must be attended to promptly in the matter of potting on and pinching out the tops, keeping them as long as possible on a shelf near the glass. On bright days the staging and pathways may be damped down.

Chironia ixifera.—This useful decorative plant is easily propagated from cuttings if they are put in now in a warm propagating-case. To succeed well the plants must not be overpotted, and should be watered with care. An intermediate temperature suits them best.

The Flower Garden.

Montbretias.—As these are now commencing to grow vigorously, it is time to plant out. The ground having been previously prepared for their reception, the planting simply consists of taking out small trenches and laying in the corms very carefully with the stolons attached, but not at all deep. If planted in rows, they should be 15 inches apart.

Asters.—For the general summer display the sowing of these annuals ought not to be further delayed. Sow thinly in boxes and place in very gentle heat, when they will quickly germinate.

Stocks.—Seeds of Ten-week and Beauty of Nice type should now be sown. As soon as germination has taken place, grow under cool conditions. Watering must be done very carefully, as the seedlings are liable to damp off.

Lawns.—Any portions requiring renovating and levelling must be attended to. This is a good season to sow lawn grass seed, as it then has time to become established before the summer.

Tuberous Begonias.—If these are not already started, they should now all be placed in boxes of leaf-soil and put in gentle heat. Very little moisture will be required except an occasional syringing until the plants are growing freely.

Fruit Under Glass.

Orchard-House.—The majority of the fruit trees will be in bloom, and should be regularly fertilised about the middle of the day. When it is seen that the flowers have set, a judicious thinning of the fruits ought to take place, so as not to overtax the energies of the trees. As it is particularly difficult to prevent some varieties of Pears and Plums from dropping their fruit, great care is required in their treatment, especially regarding ventilation and the application of water.

Early Figs in pots should have a top-dressing applied, as surface roots are very active. Good loam with a fair proportion of some fertiliser which can be quickly assimilated is best, and, for some time after, watering should be done through a rose. If the crop of fruit is rather heavy, it will be an advantage to slightly reduce it.

Early Vines.—Now that the berries are swelling, some extra help may be given to the Vines by an application of liquid manure. The strength should be reduced sufficiently to allow it to be applied without fear of injuring the Vines. If the liquid is very rich in ammonia, it will be as well to leave a small amount of air on the top of the vinery until the fumes have escaped.

The Kitchen Garden.

Celery.—The trenches which are to be occupied later by the Celery crop should now be made before the ground becomes any drier. If there is not much depth of soil, it will be better not to make deep trenches, as these would not leave sufficient soil for the plants to flourish in. Within reason, it is almost impossible to grow Celery too large for general use; therefore the trenches must be treated to a very liberal dressing of cow-manure.

Leeks for general use should be now sown. The plants will be available for filling up ground which has been occupied by some early crop.

Potatoes.—The early crop must be planted in a warm, sheltered border. Do not plant with a dibble, but take out small trenches with a spade, so as not to break any of the tender young shoots. As the young growths appear through the ground they should be constantly covered with soil as long as possible.

Asparagus.—All loose top-dressing, such as Seaweed or litter, must now be cleared off, and the beds and paths between raked over. This is a good time to apply a reliable Asparagus manure.

Peas.—Further sowings of midseason varieties should be made whenever the condition of the soil will allow. As the earlier ones grow, some soil ought to be drawn into a small ridge along each line. Protect with small twigs of Spruce until ready for staking.

Brussels Sprouts.—Do not delay having all that are ready pricked out in cold frames, where they can remain until the end of the present month. As soon as the check of removal has been overcome, admit air freely.

Radishes.—To succeed the crops in frames or on hot-beds an outdoor sowing should be made. For general use French Breakfast is a most desirable variety. Do not sow too thickly, or a number of the seedlings may refuse to develop. This vegetable must be used when young and tender.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

CREAM PINK SWEET PEAS

THIS is by far the largest section, and there have been quite fifty names used since Mrs. Henry Bell was first introduced. It is quite evident that it is a popular section, as so many raisers and others have been striving to get the ideal cream pink. I see the National Sweet Pea Society has divided them into grades. This is a step in the right direction, and will be greatly appreciated by small growers. I hope the society will go a step further and give the names of the best varieties in each section for garden and exhibition. No other cream pink variety impressed me so much as Duplex Spencer at the National Sweet Pea Society's show in July last. It was only shown eight times, but I see it was in five first prize stands. When I stood in front of a grand vase of Duplex Spencer from Ruabon, nearly all double standards, I began to think of the twaddle that was written about double standards only a short time ago. Most of the critics were excused then, as they had never grown Sweet Peas strong enough to carry any more than single standards. Duplex Spencer is an ideal Sweet Pea for the garden as well as for exhibition.

There are two new varieties I am growing this year to compare, viz., Duchess of Portland and Helen C. Stapleton. In the deep cream pinks there are Mrs. R. Hallam, Lancashire and Hawmark Ladys. The latter as shown by Mr. E. Cowdy was grand. The colour is like that of Mrs. Hallam, but it is a larger and bolder flower. Mrs. Hallam is a grand decorative and garden variety. Lilian is, perhaps, a larger Sweet Pea than either in this section, but is rather soft, and with me has not been quite fixed. I hear rumours of Syeira Lee fixed in Duplex form. May it come soon!

T. B. L.

UNDESIRABLE PLANTS IN THE ROCK GARDEN.

AS I am keenly interested in the discussion on this subject initiated by "E. H. J."—whose initials barely hide his identity—and followed up by Sir Archibald Buchan-Hepburn, I ask to be allowed to make the following remarks.

I am inclined to demur to the condemnation of all the plants named, as under certain conditions they can almost all be utilised. But as there are so many different kinds of rock garden, I will try, if I may, to describe one which is my particular care. It is a low retaining wall 4 feet high, about fifteen inches thick, built of the yellowish red ironstone of the country where I live, formerly cottage walls. It was at first a dry wall running round three sides of my bowling green, an aggregate length of about one hundred and thirty yards, the top of the wall being on a level with a terrace. The coping having been removed, a quantity of light, loamy soil was placed on the top of the wall, and in this at first were planted a lot of suitable and unsuitable plants, such as Aubrietias, Sedums, Wallflowers, Mossy and Encrusted Saxifrages, Helianthemums, Spiræas, Aquilegias, Nepeta Mussinii, Cerastiums, Linaria hepaticæ-folia, Veronicas and many others.

Needless to say, many of these died, succumbing to the law of the survival of the fittest and a very dry summer which followed the building of the wall. As it was my ambition—a belated one, I admit—to get plants to grow on the face of my wall, I set to work to fill every interstice with soil, a task which occupied me for many months, and necessitated as many tools as a dentist employs in his profession; but from time to time I kept inserting bits of the very commonest things, such as Sedum acre, Sempervivum tectorum, Cinquefoil, wild Strawberry, Violets, Foxgloves, even common Yarrow, and with iron rods, bits of wire and a watering can I coaxed the soil on the top to percolate down, always keeping a good supply to take its place—a good mixture of loam, peat, sand, granite and limestone chips and grit. It was a slow business, but it gradually succeeded. I think my thanks are due in a measure to lob and other worms, which carried down to inaccessible places and crevices what was food for my plants.

My wall in course of time became fairly well populated or clothed. I never heeded the remonstrances of the fastidious at having such common things on my wall. My invariable reply was that as soon as I got anything better to put in their place, out they would go. I found Foxgloves thrive exceedingly well and flowered abundantly, to everybody else's disgust. Judge of my feelings one morning to find every Foxglove plant torn out by the roots, the loving work of an indignant inhabitant of my house; but I plodded on undismayed by incidents like this, and my wall is now what I would not be ashamed to show to anyone who is a judge or a lover of rock plants. Many of my plants, I grant, are common, others are rare, some quite unknown, but almost every plant has its associations.

I have a quantity of Saxifrages which I brought back with me from the granite cliffs on the fjords of Norway. There is a beautiful road with a wall on each side between Menaggio and Caddenabia on Lake Como, which some readers of THE GARDEN will remember. I have several tokens of a delightful holiday from there and the hills around. I have a Primrose from the churchyard of Hughenden; I have a Violet and wild Strawberry from that quiet spot Jordans, where the great William Penn sleeps, and which is the Mecca of the Quaker community. I have a lovely little Dianthus, a cutting from plants growing in profusion at the foot of a monument at Daylesford, underneath which lies the great Pro-Consul Warren Hastings. He was born and brought up at Daylesford and attended the village school close by.

I have a friend and schoolfellow who is now a professor of mineralogy, whose profession and zeal carries him into remote and untrodden spots in Switzerland and the Tyrol where no tourist is ever seen. Bearing me in mind, he picks up by the roots, with a little earth, beautiful little treasures whose names I do not know and no one can tell me. These with Anemones, Dianthi, Globularias, Geums and Silenes are in perfect health and vigour on my wall. My friend wraps them up in a few folds of tissue paper, packs them in a small cardboard box, and addresses and posts it in the ordinary way. It arrives in two or three days. I plunge the contents into a bowl of rain-water. In twenty-four hours every plant is as fresh as if unearthed yesterday.

Also I have friends sympathetic and kind living at the foot of the Cordilleras, also among the Andes. These occasionally, as opportunities

offer, send contributions to my museum. Though I do possess specimens from the Ural Mountains, the Caucasus and even the Himalayas, these, I am afraid, I have been extravagant enough to purchase. I spent six weeks last summer in Wharfedale in the West Riding. I found the fells a mine of wealth to the rock gardener—any quantity of *Primula frondosa*, *Pinguicula vulgaris*, &c. I was informed by an alpine botanist, though I do not pretend to be an authority myself, that there are few alpine plants which cannot be found on the fells. Under some physical difficulties I was able to secure a good many specimens. While I was ransacking the fells, I was fortunate enough to have a friend staying at an out-of-the-way village in Switzerland, who was able to send me by post in cardboard boxes quantities of plants every few days culled from those famous alpine meadows. These upon arrival were plunged into damp sand and peat to await my return, and are all doing well in their new habitat. They were the last spoils secured before the curtain of war fell upon us all, rock gardeners included.

I do not wish it to be inferred that all these plants are in my wall. No, no; I have another rock garden on a very modest scale situated on the border of a small stream, where there is a moraine constructed on the most approved plans, so far as we have learned them from experts, who are not quite in accord with each other; but we are humble students, and read the masters like Messrs. Robinson, Wright, and Clarence Elliott, and that fascinating little book of Mr. Malby's. There are many others.

We have also established a bog, and on a kind of miniature range of limestone rocks with every necessary aspect we try to humour the idiosyncrasies of our plants, so far as we can discover what they are in the face of contradictory opinions of our experts and masters. Near at hand we keep heaps of black peat, sharp sand, limestone and granite chips, or grit. Of loam of a good light kind we have an abundance, and this has plenty of lime. What more can they or we require? Now, after relating all this at such tedious length, "E. H. J." and Sir Archibald will, I hope, understand that a good many of their undesirables, while I admit they are most objectionable on account of their rampageous habits in the ordinary well-conducted rock garden, can be used with great success and effect in the chinks of a retaining stone wall filled in or stuffed as I have described mine.

Now, with all due respect and diffidence, I consider Sir Archibald's list much too sweeping, and I would make an earnest appeal on behalf of the *Acænas*—I have at least four varieties which suit my wall, especially *microphylla* and *Buchananii*; also on behalf of *Linaria hepaticæ-folia*, which, though most objectionable on the grounds and conditions stated, is an admirable little plant on the face of a retaining wall with its tiny, modest white Violet flower and mottled leaf. *Cotula squalida* is another excellent plant in a chink. I find, however, the following—though each is beautiful in its way—very troublesome: *Vinca minor alba* and *Convolvulus althæoides*, both of which, even on a wall, require the constant application of a strong pair of scissors to cut them back to prevent them throttling their neighbours. *Oxalis corniculata* is also a pest, I agree, and should be grubbed up with a small fork as soon as seen. It is easily detected.

As my contribution to the list of undesirables not yet listed, may I place *Corydalis lutea*, the

most persistent of succulent plants, which seeds itself everywhere, quite indifferent to any conditions of hardship. I would also like to veto a certain number of Dianthi, unnamed varieties, sent to me from the Pyrenees, great straggling things with very little bloom in proportion to the vegetation and room they occupy. I have uprooted a quantity of these, reserving *cæsius*, *deltoides* and *neglectus*.

Double *Arabis* is also, I think, undesirable and untidy, though a persistent bloomer. I agree with "E. H. J." and Sir Archibald about *Cerasium*, but I had anticipated the plan of curbing their irrepressible roots by stuffing them into an old half-pound Tobacco tin with a hole knocked in the bottom for drainage, and burying them up to the neck. This has answered with *tomentosum*, but with *Biebersteinii* still more drastic measures must be taken. I must, however, to give this German devil his due, be grateful for his beautiful green cushions during the winter months, which add to the appearance of my wall. I did not know that earthenware cylinders could be purchased and used for the purpose Sir Archibald describes. I wonder where he gets them!

In conclusion, may I give a list of plants in flower on the top and on the face of my wall on March 15: *Aconite* (common), *Arabis* (single), *Hepatica angulosa*, *Crocus* and *Snowdrops*, *Iberis* Little Gem (just coming on), *Anemone blanda* in various shades of blue, *A. fulgens* (just bursting into bloom), *Aubrietia* Lloyd-Edwards and several other varieties, *Myosotis* (common), *Narcissus cyclamineus*, *N. minimus*, *Iris Danfordiæ*, *Primulas* and *Polyanthuses* in great variety, *Primula marginata*, *Saxifragas sancta*, *Elizabethæ*, *Faldonside*, *oppositifolia*, red and white *burseriana*, *Boydii* and *apiculata*, *Soldanella alpina*, *Scilla sibirica* (at foot of wall), and *Phlox subulata* G. F. Wilson.

EDWARD BROWNE.

Grey Court, Astrop, Banbury.

NYMPHÆA GIGANTEA A TRAP FOR BEES.

ONE would hardly suppose that the blue flowers of this splendid aquatic could become traps for the destruction of honey bees, in some localities in hundreds or thousands, but such is a fact, and I will endeavour to explain this curious matter. This *Nymphæa* abounds in many of the fresh-water creeks which flow into some of the north coastal rivers of New South Wales, as well as in lagoons and billabongs in the dry parts of the country to the north-west. The fresh-water creeks to which I refer are tidal, the water being backed up by the inflowing tides from the ocean many miles distant, and although the Water Lily flowers stand well above the water—1 foot or 18 inches—at low tide, they are completely submerged at high water. As the tide rises the flowers close very tightly, and as the water recedes they open again uninjured. When the flowers are open, they are visited by vast numbers of bees, and numbers of these bees remain busy collecting their requirements, and the gradual closing of the flowers is evidently unnoticed by them when the tide rises. By the time the blooms expand again, all the bees are dead. When I first noticed numbers and numbers of dead bees in the flowers, I was puzzled to account for the destruction, and imagined that the flowers might be poisonous, although I had seen thousands of other bees buzzing around and leaving the flowers apparently unaffected; but at last I discovered

the reason by later observations. Although the honey bee, the common European bee, has existed in the vicinity of this trap for at least fifty or sixty years, it has not yet discovered how to avoid the danger. Whether our native bee, a stingless species about the size of a house-fly, ever visits these flowers I cannot determine, but I have never detected a dead one there. He may have learnt the secret, or he may avoid the flowers to keep clear of his larger brother. When seen in their native glory the flowers of *Nymphæa gigantea* are extremely beautiful, thousands of them sometimes standing well above the water and their handsome, large leaves. The plant seems to thrive best in rather deep water—8 feet to 10 feet deep—and in such places it is very curious to see from a boat enormous numbers of new but undeveloped leaves rising out of the mud below, having the appearance of whip snakes. This illusion is heightened by the appearance every now and then of a real snake gliding over the water or the large, circular leaves of the Water Lilies.

WALTER S. CAMPBELL.

Vamluse Road, Rose Bay, Sydney, New South Wales.

SOME ROSE NOTES FROM NEW ZEALAND.

THE article by "Somerset" in THE GARDEN for October 31, 1914, will, no doubt, bring forth many replies, as varied as they will be interesting. He strikes the keynote when he says he does not want to "spray once a fortnight." There are many more in the same street. They have neither time nor energy. The trouble about mildew is that though we stop it on some shoots, those that grow afterwards will be just as bad, and spraying will have to be done over again. It is of no good going into the reasons; the fact remains that we have it always with us. The freest Roses with me are Mme. Jean Dupuy, Maman Cochet, White Maman Cochet, A. R. Goodwin, General Macarthur, Melody, Mrs. Dudley Cross, Earl of Warwick, Mme. A. Chatenay, General Gallieni and Zephyrine Drouhin. The wichuriana section are bad in some seasons, with the exception of American Pillar and Alberic Barbier. Climbing Roses seem to suffer considerably, and, as far as I know, W. A. Richardson and the Yellow and White Banksians are the best. While giving these Roses that are free or fairly free, there are some that do not get it badly, notably Lady Hillingdon, Mrs. H. Stevens, Louise Catherine Breslau, Theresa, Laurent Carle, Ulrich Brunner, Tom Wood, A. H. Gray, Hugh Dickson, Lady Alice Stanley, Rayon d'Or, Mrs. Cornwallis West, W. E. Lippiatt and British Queen. The worst that I know are Killarney and its white sport, Frau Karl Druschki, Commander Jules Gravereaux, Mrs. John Laing, Mrs. R. G. Sharman Crawford, Grüss an Sangerhausen, Irish Elegance, His Majesty, George Dickson, J. B. Clark, Countess of Gosford, Jonkheer J. L. Mock and William Shean among the dwarfs. Climbing *Devoniensis*, Souvenir de Mme. Leonie Viennot (the best of all climbers), Climbing Caroline Testout, Mme. Jules Gravereaux and Crimson Rambler would get white with it if it was not checked. Climbing White Maman Cochet, about the most rampant grower I know, is, like its dwarf parent, entirely free. This has not been a good season in this part of the world for Roses, as it has been exceptionally windy. In the words of the oldest inhabitant, "The worst I have ever known."

The early spring was very dry, and Roses did not get a good start in life. Most of the shows were held as usual, but the blooms were not as good as they generally are. Only one or two good blooms of George Dickson were staged. Perhaps the best was Melody; it seemed to revel in the dry weather. The second crop is now in full swing, and the blooms are splendid. With such weather as we have had for the last month, Roses will not cease to bloom until well on into the winter.

Fielding, New Zealand.

F. MASON.

[We thank our correspondents for the interesting letters, and shall be glad if other Colonial readers will send similar letters about plants in their countries.—Ed.]

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. A reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artists' or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

Offices: 20, Tavistock Street, Covent Garden, W.C.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

VIOLETS FOR EXAMINATION (*Enquirer*).—Your Violets appear to be attacked by eelworms at the root. We recommend you to have the frame scrubbed out thoroughly with carbolic soap, to remove all the soil, and replace with fresh which has not been used for growing garden plants in, at any rate recently, and to start with a new stock of plants from a fresh source. We would like to emphasise particularly the need for giving abundance of air on all possible occasions.

ANNUALS FOR DRY, SANDY, SUNNY BORDER (*Mrs. E. R.*).—Perhaps the best of all annuals for such a purpose is the dwarf Tom Thumb *Nasturtium*, a well-regulated mixture of which would provide a perfect floral mosaic. *Abronia umbellata* (Sand Verbena), Orange King Marigold (a superb bit of colour), *Chrysanthemum carinatum* in many beautiful shades, and *Godetias* in variety should do well. *Tagetes signata* pumila, T. Legion of Honour, *Nemophila insignis* and *Alyssum maritimum* are four excellent subjects for lines, ribbons or borderings. *Calandrinia grandiflora* should be quite at home in such a position, and so, too, should the Shirley and other Poppies. Ten-week Stocks, *Coreopsis tinctoria*, Sweet Sultans, *Dianthus Heddewigii*, *Erysimum perofskianum*, Candy-tuft and *Eschscholtzia* (the last two in many shades of colour) are others that should acquit themselves well in such a position. It is, however, high time the seeds of such things were sown. If you want good flowers and plenty of them, do not forget to sow thinly, subsequently thinning early to give each plant a chance.

THE GARDEN.

No. 2264.—VOL. LXXIX.

APRIL 10, 1915.

NOTES OF THE WEEK.

Our Sub-Editor at the Front.—We think the following note, written on March 28 by our Sub-Editor, Mr. H. Cowley, who is with the British Expeditionary Force "somewhere in France or Belgium," will be of interest: "The suggestion of quick-growing seeds for the soldiers is excellent. Rightful instances are now to be seen of dug-outs covered with verdant green turf, garden plots divided by red brick and clinker paths suggestive of an Italian garden design. Some plots are now bright with Cowslips, Lesser Celandine and fresh green leaves of the Cuckoo-pint—wild flowers previously lifted from meadows and ditches near the front. Yet the roar of heavy guns and the roll of the fire are incessant. Verily, the Briton is a born gardener. But why is it my London gardening friends will call the Cowslip a Primrose? Even the appreciative Peter Bell knew better:

A Primrose by the river's brim
A Primrose yellow was to him,
And it was nothing more."

The Gardeners' Royal Benevolent Institution.—We understand that Sir Frank Crisp has sent a cheque for £58 3s. out of the funds of the Institution, this being one quarter of the admission fees to Friar Park, Henley-on-Thames, last summer.

An Interesting Flowering Shrub.—*Corylopsis spicata* is one of the most interesting of the winter or early spring flowering shrubs, but it is by no means common. At the present time it is bearing its primrose yellow flowers in clusters of ten to twelve, the fragrance of which greatly resembles that of the Cowslip.

Corylopsis pauciflora differs from *C. spicata* in the flowers being paler and borne in pairs instead of clusters, while the leaves are also narrower. These shrubs are allied to the Witch Hazels and Parrotias, all of which bloom before the leaves appear.

A Handsome Buttercup.—In *Ranunculus repens* we have a handsome plant for the greenhouse, both for its large foliage and freely branched cymes of large, rich yellow flowers. Good well-grown plants form a bold mass, as they grow from 4 feet to 5 feet high and often 2 feet broad, and either mixed with other plants or alone they create a charming effect at the present time. By no means new, this beautiful species

from the Canary Islands is not well known, certainly not to the extent it deserves, as it is easily cultivated, and, although not quite hardy, only needs the protection of a frame during the winter.

Seasonable Work among Strawberries.—The hoe should be kept regularly at work between the rows of Strawberry plants until the flower-spikes become prominent, and at the same time a sprinkling of artificial manure may be applied carefully between the plants. If blanks have been caused during the winter, they should be made up with spare plants from the forcing stock.

Transplanting Evergreens.—The present time will be found the most suitable for transplanting

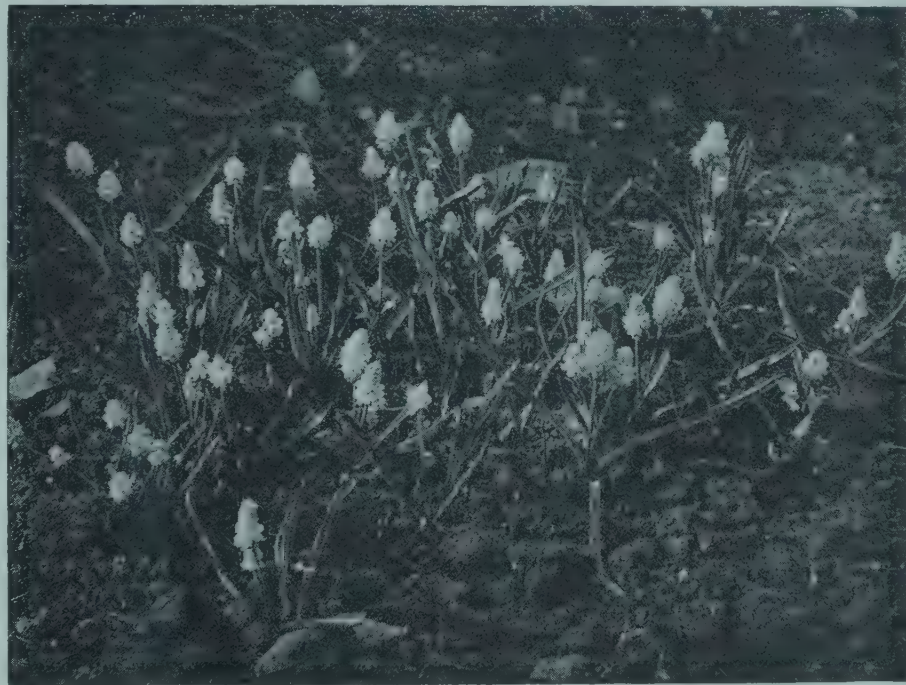
of snowy, green-tipped flowers in almost any position. The beautiful variety *carpaticum* has larger flowers and more yellow spots. By planting the Snowflakes in a bed of Mossy Saxifrage, the soft green carpet, studded with the drooping bells, produces a fine effect either in the rockery or flower garden.

A Dainty Spring Flower.—The little dwarf Hyacinth shown in the accompanying illustration is a well-known plant, yet we do not think it is grown anything like so extensively as its merits demand. Its botanical name is *Hyacinthus azureus*, but it is frequently erroneously described as *Muscari azureum*. Owing to its dwarf

habit—it rarely grows more than 5 inches high—it is a beautiful little plant for the rock garden, but to get the best effect the bulbs should be planted in small colonies, as shown in the illustration. When grouped in this way, in soil that is fairly porous, the pale blue flowers are seen to great advantage. It is a native of Asia Minor, and usually flowers in this country during March and early April.

Presentation to Mr. Frank Reader.—The many friends of Mr. Frank Reader will learn with pleasure that on the 17th ult. he completed his twenty-fifth year as chief cashier of the Royal Horticultural Society. In recognition of his valuable services during that period, the president and Council presented him on Tuesday, the 30th ult., with a handsome solid silver tea service, engraved as follows: "Presented to Mr. Frank Reader by the president and Council of the Royal

Horticultural Society in commemoration of the twenty-fifth anniversary of his appointment as Chief Cashier of the Society, March 17, 1915." This gift was supplemented by six solid silver tea spoons and sugar tongs from Mr. J. Gurney Fowler, treasurer of the society; six tea cups and saucers of Royal Worcester ware from the secretary, the Rev. W. Wilks; and a Japanese tea tray from other members of the staff. During Mr. Reader's term of office his courteous manner has endeared him to all with whom he has come into contact, and we sincerely hope that he may be spared many years to enjoy these practical recognitions of his services.



A COLONY OF HYACINTHUS AZUREUS, A CHARMING LITTLE BLUE FLOWER FOR ROCK GARDEN OR SHRUBBERY.

Hollies, Yew, Laurustinus, Box, and other evergreens, as the fresh roots are soon formed, quickly establishing the plants. Before filling in all the soil it is a good plan to give each plant a soaking of water. This also helps to work the soil well round the roots. Should the weather be at all dry, good waterings must be given until the plants have become established, and syringing the tops during bright, dry weather will be beneficial.

The Spring Snowflake.—This beautiful spring flower (*Leucojum vernum*) is now at its best, and to many would appear even more beautiful than the Snowdrops. It is just as easily grown, for rarely does it fail to produce an abundance

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Wattle Hurdles for Shelter.—In your issue for March 27 Mr. Molyneux of Swanmore writes as if he had discovered something new as a shelter for plants and shrubs, when, as a matter of fact, these hurdles have been made for several hundred years in the Southern Counties at a cost of about 7s. 6d. or 8s. per dozen, with stakes (or shores) for every two hurdles at 1d. each for folding sheep. Now, alas! in this age of cheapness, galvanised wire sheep netting is taking the place, on the cheaply run farms, of the wattle hurdles, as being easier to move, but to the detriment of the sheep and lambs, who lose the grateful shelter afforded by a fold constructed of wattled hurdles.

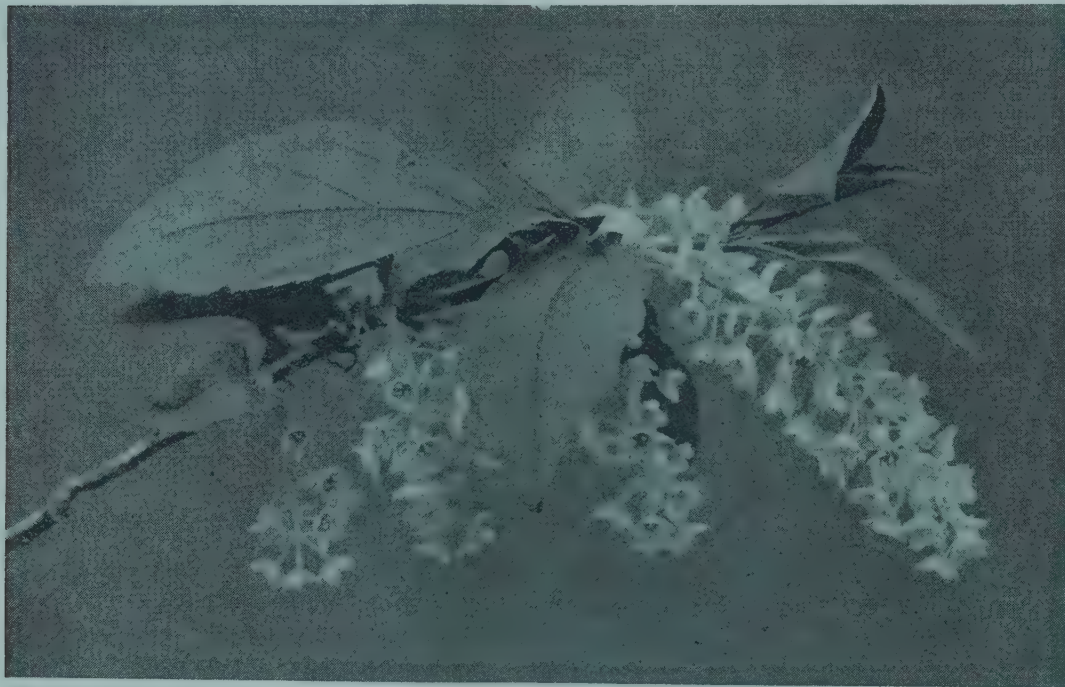
A Word to Daffodil Seedling Raisers.—Now that there are so many fine seedling trumpet Daffodils of all sections, it seems to me that it behoves seedling raisers to harden their hearts

early, and valuable time would be lost if one waited for the basal growths, which might not root owing to their sappiness. Generally speaking, the rooting of cuttings is not worth the trouble, save from a trader's point of view when he desires to increase a stock of a novelty. For garden purposes rooted cuttings are of little value. The plants obtained are never vigorous, and while they come into bloom more quickly than seedlings, the flowers are never equal to those of seedlings. Personally, I would advise amateurs to leave cuttings alone, for, apart from the inferiority of the plants, there is always a danger that the seedlings, deprived of their tops, will collapse.—T. A. W.

Grevilleas in Australia.—In your issue for December 19, 1914, you have, in the "Answers to Correspondents" columns, a reply to a correspondent who had sent a leaf for identification. You say "The name of the plant . . . is *Grevillea robusta* . . . it is a very good room plant . . . in its native country this *Grevillea* grows into a large bush . . . in the London parks it is employed

Though it varies in stature according to the conditions under which it grows in a state of Nature it would have been better had we referred to it as a tree. In this country, of course, it requires glass protection, and we have never known it flower here. We are much obliged for your interesting notes on *Grevilleas*, and also for your kind remarks on the enjoyment and information you derive from *THE GARDEN*.—ED.]

Undesirables in the Rock Garden.—I do not intend to write a further letter on the above subject, but I think "Alpinist's" letter in *THE GARDEN* for March 27 calls for a little comment. He says I sing the praises of *Cerastium tomentosum*. So I do, and I still hold that it is not a plant to be despised in the rock garden. Folks who live in the country (where so many things will grow) may prefer to devote its place to something more delicate and valuable; but townsmen especially (who, as I pointed out, often attempt a bit of rock garden, or, if not, a "rockery") cannot afford to do without this plant. I do not admit that it is undesirable in the rock garden, nor do I agree with "Alpinist" when he says that "the proper province of *Cerastium tomentosum* is that of an edging plant in borders." Your correspondent will find that it does not make a good edging, and, if he tries, he will find that the single *Arabis* makes a much better one. *Cerastium* is too free-growing for that; it is much the best planted where it can scramble down over stones in the rock garden. I have seen it growing in several rock gardens and in combined rock and walled gardens, as well as having it in my pieces of rock garden here, and the only complaint is that it grows so quickly; but this is hardly excuse enough for calling it undesirable. Your correspondent also says: "Fancy cutting alpine plants back twice a year as though they were some subject in a topiary garden!" May I ask him if he has grown the double *Arabis* for a few years together as an alpine in the rock garden? Surely he will remember what a rampagous grower it is, and that to keep it in bounds it has to be cut back once a year. Your correspondent writes without thinking. The cutting back of certain alpine plants is necessary work, though one would, of course, much prefer to let them grow naturally if only space would permit. "Alpinist" thinks that the *Arabis* is less of a nuisance than *C. tomentosum*. If I were asked which I thought was the undesirable plant of the two, I should say the double *Arabis*, inasmuch as it is far more rampagous than the other. [Query.—ED.] But I like both, and I think there are very few persons who would forbid the double *Arabis* in the rock garden, yet they denounce *C. tomentosum*, a much less rampagous grower. Many other plants—*Vincas*, some *Sedums* and certain *Aubrietias*, for example—have also to be cut back when they wish to exceed bounds, and if the work be carefully done, the plants look tidy very soon after. So I cannot agree with him. "Alpinist" goes on to quote from Mr. G. R. Phipps' letter, which was printed next to mine in the issue for March 13, *re* trees in or near the rock garden. May I point out that drip is not nearly so fatal to certain alpinists as "Alpinist" imagines. Certain of the strong-growing *Saxifrages*, many *Sedums*, some *Sempervivums* and other plants will do quite well even if there is a slight drip. Of course, I know that it is much the best to have a rock garden completely away from trees, but this cannot always be managed.—E. T. ELLIS, *Weetwood, Ecclesall, Sheffield*.



A FLOWERING SPRAY OF THE MALE PLANT OF *RIBES LAURIFOLIUM*, A NEW EVERGREEN SPECIES FROM CHINA.

and discard any that—no matter how good in other respects—are short in the stem. A noted North Country grower wrote me not long ago: "I am in search of a good white trumpet Daffodil with a long stem, but I suppose that is what everybody else is on the look-out for." Our old friend Mme. de Graaff has had a good long reign, but it now transpires that it is not a popular flower in the market, and it does not need a very discerning eye to discover that shortness of stature is its fault. The ultimate and most desirable use and purpose of every good trumpet Daffodil is the market, and there length of stem is, and always will be, a pre-eminent qualification.—ORNATUS. [We do not think all our readers will agree with "Ornatus." Short-stemmed Daffodils, such as Mme. de Graaff or the Tenby Daffodil, are much better for wind-swept gardens than taller varieties.—ED.]

Sweet Peas from Cuttings.—Mr. William F. Rowles is in error on page 127, March 13 issue, in surmising that basal growths as they lengthen out would make better cuttings than tops. To do any good at all, the cuttings must be secured

as a dot plant," &c. There is some error. The *Grevillea* is represented by fifty-seven varieties, natives of all the Colonies, ranging in height from 2 feet to 100 feet and mostly flowering, the flowers ranging from white to red and yellows. The one you mention as *Grevillea robusta* is more popularly known here as the Silky Oak, and in Queensland, where it grows best (Queensland is largely tropical), as the Tuggan-Tuggan. It is an evergreen tree, 80 feet to 100 feet in height, and its flowers are orange in colour. This year here in Victoria it flowered beautifully, due to the dry winter and early heat. I may say I have subscribed to *THE GARDEN* for many years, and there is no paper I would not sooner do without than *THE GARDEN*. I get a great deal of information and enjoyment from it. It is the paper for keeping one up to date with all garden matters.—E. E. MORBEY, *Camberwell, Melbourne, Victoria, Australia*. [It is quite correct, as stated in our issue of December 19 last, that in a small state *Grevillea robusta* is largely grown for decorative purposes, being a good room plant, while in the London parks it is employed as a dot plant for summer bedding.

Vegetable Manure.—There are many good points in the note by "E. T. E.," page 153, issue March 27. I think if cultivators charred to ashes as much garden refuse as possible, including weeds, during the current year, and, in fact, every year, the results would be more satisfactory than simply consigning it to a hole as suggested. The object in view is laudable, but in some gardens the method would be a serious nuisance. From every side, would not salt be better to use at that stage than lime? There is a great clearance of Brussels Sprout, Cabbage, Broccoli and Kale stems in the spring. It is not difficult to burn them with other rubbish, and collect and store the dry ashes, which are clean and pleasant to apply at any time. Seeds of weeds, of course, perish in the fire and give no further trouble. I add fine cinders, a little coal slack and ordinary soil to the heap, and keep the fire going for many days.—AVON.

The Chatham Island Forget-me-not in Scotland.—The noble *Myosotidium nobile*, the Chatham Island Forget-me-not, is rarely seen doing well in Scotland or in the North of England. It suffers not only from cold in the winter, but also from gales injuring the handsome, glossy leaves, these often being made quite unsightly by the storms, especially in a place where an eddy is caused by the wind. In such a position the fine foliage is often hopelessly marred. It also requires a fairly warm place if it is to flower, and it is not everywhere in the North that all its desires can be met with such completeness as to induce it to live and bloom. The finest specimens the writer has ever seen in Scotland were in the garden of Mr. Kenneth M'Douall of Logan, Wigtownshire, a garden which many tender subjects evidently appreciate, and where many rare plants flourish amazingly. There, with a minimum of winter protection, *M. nobile* thrives in a manner which is the envy of those who are less fortunate. With its large, handsome, shining leaves and good blue flowers this Chatham Island Forget-me-not is quite a delight to see. I do not care so much for the white variety.—S. ARNOTT.

Antirrhinums and Disease.—In reply to Mr. E. K. Potter, page 135, issue March 20, I have had little personal experience of disease in Antirrhinums, but I think there is not the slightest doubt that his plants are infected with the fungus *Septoria Antirrhini*. If Mr. Potter can obtain Part II., Vol. XXXV. of the Journal of the Royal Horticultural Society (November, 1909), he will there find a two-page note, with illustrations, by Mr. Chittenden, F.L.S., on the subject. Spraying with Bordeaux mixture is recommended as a preventive. If I had infected plants, I should try this. I should apply it, I think, even if I had not infected plants, if I had been troubled with the disease in previous crops. Is Mr. Potter's soil well drained? This is essential to the good

health of the Snapdragon. Are his seed-boxes well drained? What is the source of his seed? Is it home-saved or bought? I am sorry I cannot tell Mr. Potter if his particular fungus is the same as the American one called by them rust disease. All I know is they have different names over there, e.g., *Puccinia Antirrhini* and *Colletotrichum Antirrhini*. As an old-fashioned cultivator, I believe the best way to ward off insect and fungoid attacks is to keep plants in good health and apply preventives in time. Some day I hope we shall go to the length of inoculating our plants to make them immune, just as our soldiers are immune to typhoid after the inoculation they undergo.



THE FEMALE FLOWERS OF RIBES LAURIFOLIUM.

Have not some of your numerous readers found a specific for the Antirrhinum disease? Although, as I said previously, I have had little experience of it, I was sorry to be told by Mr. Chittenden the other day that it is spreading in England. I often think we might be more communicative than we are. Some grower in some out-of-the-way corner of the land may have discovered something which would be beneficial to many. Let him take up his pen and tell us about it.—W. CUTHBERTSON, *Duddingston*.

FORTHCOMING EVENT.

April 16.—National Rose Society's Spring Show. Horticultural Hall, Vincent Square, Westminster

A NEW EVERGREEN FLOWERING CURRANT.

RIBES LAURIFOLIUM.

THIS is an interesting Flowering Currant of recent introduction from Western China. Two distinct characters are that the plants are dioecious and evergreen. Evergreen Ribes are not common. Others in cultivation are *R. gayanum* (*R. villosum*, *Botanical Magazine*, t. 7611), a Chilean species, and *R. viburnifolium* (*Botanical Magazine*, t. 8094), a native of Lower California and Santa Catalina Island.

R. laurifolium was introduced by Mr. E. H. Wilson in 1908 from Western Sze-chuan. He collected fruits in September of that year at an elevation of about seven thousand feet, describing it as an unarmed evergreen shrub up to 6 feet in height, not common. Cultivated plants in the Royal Horticultural Society's garden at Wisley, and in the garden of the Hon. Vicary Gibbs at Aldenham House, are 2 feet to 3 feet in height. On March 2 Messrs. J. Piper and Sons, Limited, Bayswater, exhibited male and female plants at the fortnightly meeting of the Royal Horticultural Society.

The coarsely toothed leaves are rich green in colour, with a rather leathery texture, up to 5 inches long and 2½ inches broad. The flowers are greenish yellow, borne on pendent racemes 1½ inches to 2½ inches long during February and March. The plants have stood unharmed outside through the comparatively mild winters of 1913-14 and 1914-15, but the recent frosts spoil the flowers on plants in the open. This suggests that the most satisfactory position for this Chinese Currant will be at the foot of a sheltered south or west wall. The plants thrive in good garden soil, and though coddling is not necessary, they require rather more attention than one is accustomed to give to the Flowering Currant, *R.*

sanguineum, in the shrubbery border. Propagation is done by layering, and by cuttings inserted in pots of sandy soil in gentle bottom-heat during July and August. With both male and female plants in cultivation it should also be possible to obtain seeds.

It is quite probable that this new-comer will prove a valuable shrub for the hybridist. The Ribes family is one that apparently might be considerably improved by crossing or hybridising, as several of the species, notably *R. sanguineum*, already referred to, are very popular shrubs especially among amateurs.

A. O.

NITROGEN, POTASH AND PHOSPHORUS.

THEIR EFFECT ON PLANTS.

ALL plants require at least ten of the chemical elements in order to develop properly. Most of these elements enter into the composition of the living material of the plant itself; the others are required to promote the chemical changes which are necessary to the growth and well-being of the plant. The complete absence of any one results in a cessation of normal growth; a shortage of any one results in failure to obtain the fullest development. One of them, the carbon, is obtained from the air; the other nine are got from the soil. The yield of a crop depends largely upon the presence of each of the nine in sufficient quantities in available—that is, soluble—form in the soil. Of these nine, only three are likely to be deficient in most soils—the nitrogen, the potash and the phosphorus. There are usually abundant stores of the remaining six.

Each of the elements plays a certain definite part in the nutrition of the plant, and on account of this an experienced person can generally tell whether any particular element is deficient by an inspection of the growing crop. He has to take many things into consideration in forming his judgment, and he can, perhaps, form it most easily when a mixed lot of plants are growing upon the soil, for each of the three I have referred to

phosphates as well, consisted wholly of grasses. Deficiency of nitrogen results in stunted growth of shoot and foliage, a poor, starved appearance, and yellowish tint generally. Conversely, excess of nitrogen results in vigorous development of large, soft leaves, sappy shoots and a deep green lush appearance.

Nitrogenous Manures, then, are to be used when it is desired to encourage large leaf development and succulent growth. Too much will cause the plant to become so sappy as to be an easy prey to insect and fungus pests. The form to be used must depend partly upon the speed with which the results desired are wished for. Nitrate of soda and nitrate of lime are most active, as they are most readily available; then follow sulphate of ammonia and calcium cyanamide, or nitrolim; then the organic manures. The last vary in availability, mainly according to the rate at which they decay.

Potash plays a different part. Without it the making of sugar or starch ceases; exactly why is not known. It may be actually necessary for the formation of these things, or its absence may interfere with their movement from place to place. Plants with a deficient supply, therefore, soon grow slowly, and they usually have a poor colour, while frequently the tips of the leaves die and turn brown. The epidermis does not appear to harden so much as when the supply of potash is sufficient, and Tomatoes and the like are more liable to crack as a consequence. Deficient

to reduce the amount of available potash by applying soluble potash salts, paradoxical as it may seem, and lime is the best key with which to unlock the potash again. On lighter lands kainit in winter, or sulphate of potash or wood-ashes in spring, are often an aid to better crops.

Phosphorus is best supplied as phosphates. Phosphates have an extraordinary effect upon root development, and are thus a capital preparation for periods of drought. They hasten ripening, and they further the storing of food in seeds. They are, therefore, particularly desirable wherever crops are wanted early, or where it is wished to encourage the ripening of wood, as with fruit trees and with tender shrubs in winter, and where crops are grown for their seeds.

Superphosphate is best where lime is present in the soil, and may be used in spring, as may bone-meal. Where the soil is heavy or lime deficient, basic slag should be used. SCIENTIST.

SOME GOOD GARDEN RHODODENDRONS.

DURING recent years a great deal of attention has been given to hardy Rhododendrons, stimulated, no doubt, by the numerous seedlings that have been raised in many gardens and nurseries from seeds sent home from China by Wilson and other collectors.

Already a number of these have flowered, and a few promise to make really good shrubs for garden purposes, while others would seem to be of botanical interest only. However, we need to know more about these before any definite statements can be made. Apart from these, however, we have a great many beautiful species and varieties that have been well tried in our gardens, and which, during May and June, impart to their surroundings rich Oriental effects such as cannot be obtained from any other shrubs. In the favourable climate of Devon and Cornwall a number of beautiful species, such as *Falconeri*, *argenteum* and *arboreum*, can be grown successfully in the open. At Tregothnan there is a wonderful specimen of *Falconeri*, which is a native of Sikkim. This plant has been known to carry as many as 1,200 of its large trusses of white flowers in one season. But these are not Rhododendrons for exposed gardens and less generous climates.

Fortunately, our hardy Rhododendrons do not impose any severe tax on the skill of the cultivator. It is true that in a few gardens the best skill does not prove effective, but this is the exception rather than the rule. What the majority do demand, however, is soil that is well drained,

practically free from lime, and preferably of a light, sandy and peaty character. This must not, however, be taken to mean that peat is essential for their well-being. The statement so often made that it is necessary has been exploded in many gardens, though no one would deny that the plants like it when it can be afforded them. But peat is not always easy to obtain, and, given a moderately light soil, this can be made quite suitable by adding to it liberal quantities of top spit from an old pasture, decayed leaves and thoroughly decayed manure, that from old Mushroom-beds being ideal. In a great many



RHODODENDRON COMPACTUM MULTIFLORUM, A DWARF VARIETY THAT FLOWERS FREELY.

encourages the development of a different set of plants. In the famous Rothamsted experiments, for instance, where potash and phosphates, but no nitrogen, were used in manuring pasture land, in course of time leguminous plants came to constitute half the herbage. Now, leguminous crops have, by reason of the bacteria in the nodules on their roots, means of getting nitrogen which other plants lack, so that it is evident that the leafy grasses were discouraged by the comparative deficiency of nitrogen, and the idea is strengthened by the fact that the vegetation on the plots receiving only nitrogen, or nitrogen, potash and

supplies of potash appear also to affect the colouring of fruits adversely. That their ripening is affected is evident from the fact that sugar formation is checked. Certain fungi are more easily able to attack plants suffering from potash starvation.

Potash Manures are wanted particularly by plants which produce and store large quantities of sugar or starch. Beet, Carrot, Potato, Tomato, fruit trees and the like are all benefited by the application of potash salts where they are deficient. Clayey, strong soils often need liming to unlock the stores of potash they contain. The peculiar composition of these soils renders it quite possible

gardens where the natural soil is a friable sandy loam, it is quite suitable for Rhododendrons without any more than ordinary preparation. The ground beneath the bushes should be carpeted with decayed leaves, so that the surface roots are protected from fierce sun.

Although spring—early April—is the season most favoured for planting Rhododendrons, specially the evergreen species and varieties, they can be successfully moved at the end of September and during October, or even later if the weather is open, though there is always an element of risk should severe frost set in directly after the work is done. Deep planting must be strictly avoided, an inch of soil over the uppermost roots being ample. If early autumn or spring planting is adopted, heavy waterings must be given to thoroughly soak the soil, and overhead syringing or sprayings daily for a fortnight should the weather be sunny and dry. Rhododendrons need little, if any, pruning; but it is very important to remove all seed-pods as soon as the flowers have faded. If this is neglected, the chances of getting a display of flowers the following year are small.

As already pointed out, there are now so many beautiful species and varieties that can be successfully grown in gardens situated in reasonably favourable localities that it is exceedingly difficult to make a selection of the best. It is doubtful if any two persons could draw up lists alike, as personal taste differs so widely. The following, however, are all good. Unless otherwise stated, they flower during May or June. All are evergreen. The height of garden varieties varies considerably, according to circumstances.

Alice.—A beautiful new variety, very compact, with rich, clear pink flowers. Too expensive for general planting yet, but is undoubtedly one of the Rhododendrons of the future.

Countess of Clancarty.—A charming Rhododendron that bears large trusses of light rosy crimson flowers.

Cinnabarinum.—A charming species from the Himalayas. It should not be planted in very cold, exposed positions, though it is quite hardy at Kew. It makes a rather upright bush, and produces its curious, pendulous, bell-shaped flowers fairly freely. These are of orange, red or crimson colour, and usually open in June.

Compactum multiflorum.—This is a dwarf variety, often below 2 feet high. It is of compact habit, with rather small leaves, and bears a profusion of white, pink-flushed flowers during April or early May.

Cornubia.—A new hybrid that is being very largely planted in gardens. The flowers are large and clear, and of a rich tint of glowing scarlet crimson. Very erect habit. It is more suitable for the warmer parts of the country than for general cultivation.

Fortunei.—This is a Chinese species of vigorous habit which bears large, delicate pink, fragrant blossoms which are distinguished from other kinds by their greater number of petals. A set of garden hybrids has been raised between it and other hardy kinds. They are free flowering and usually fragrant. Good ones are Miss E. A. Boulton, Mrs. Thiselton-Dyer and Duchess of York.

Caucasicum, an early flowering species from the Caucasus, is recognised by its compact habit

and early flowering qualities. The flowers, of different forms, may be white, or white heavily flushed with pink. It is one of the parents of the garden hybrids.

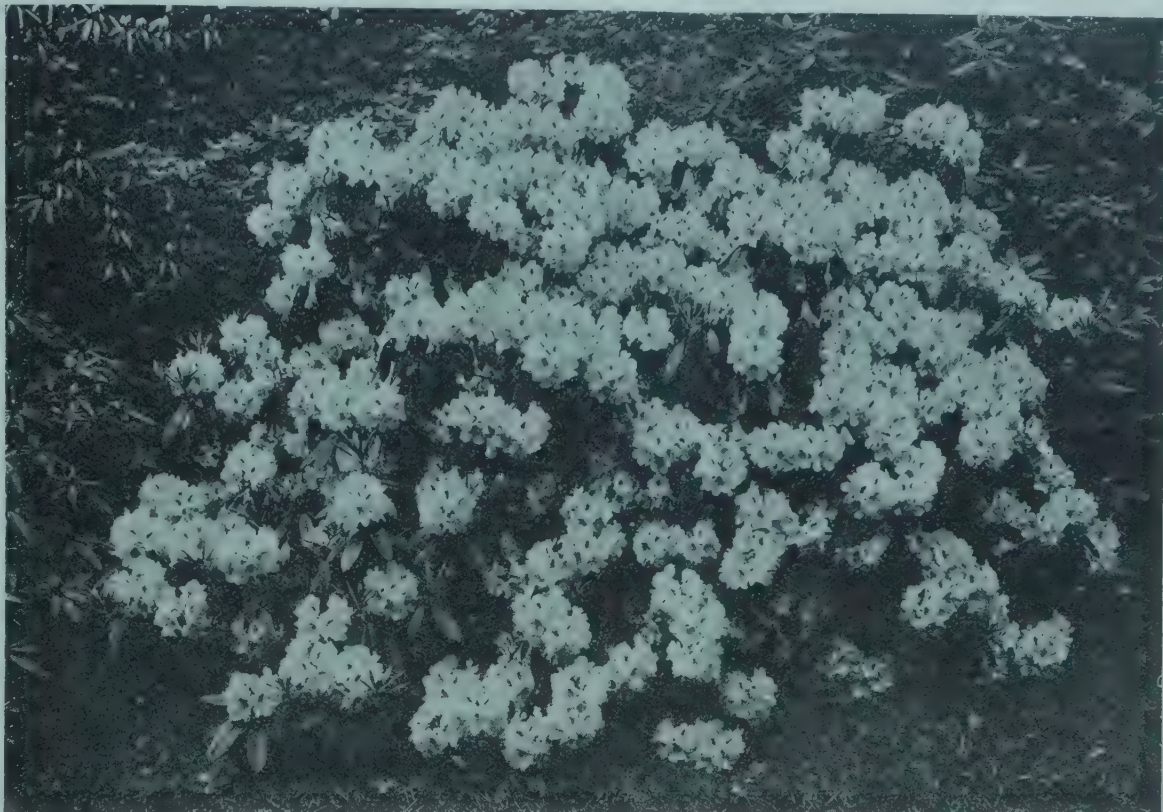
Doncaster.—A very compact-growing Rhododendron that produces its flowers in great abundance. These are glowing scarlet crimson in colour, and as they stand the sun well, it is admirably adapted for massing in beds where a gorgeous effect is desired.

Gomer Waterer.—This is a very beautiful variety, the flowers being freely produced on a bush of good habit. They are white, with a faint

would desire, but it is a very beautiful and charming variety.

Racemosum is a very beautiful species from Western China, which was introduced about a quarter of a century ago. Of dwarf habit, it takes many years to attain a height of 3 feet. It differs from most other kinds by its small rose-flushed flowers being produced in axillary as well as in terminal clusters. The flowering-time is April.

Campylocarpum.—This Himalayan species is worth attention in the milder parts of the country, for its large yellow flowers are distinct among those of the taller-growing kinds. Although



A BEAUTIFUL HYBRID FROM RHODODENDRON FORTUNEI.

tinge of pink, and the trusses are very large and pleasing.

John Waterer.—This is a very fine variety, the flowers being of good form and very freely produced in large clusters. They are intense glowing carmine in colour.

Lady Clementina Mitford.—Although some have a difficulty in cultivating this variety, it ought to be tried, if only for the colour of its blossoms, this being a charming shade of peach. The trusses are very large and shapely.

Mrs. E. C. Stirling.—This is a new variety of great promise. It has a good compact habit, and the flowers are freely produced in medium-sized trusses. They are unique in colour, inasmuch as the delicate pink flowers are quite free from spots.

Nobleanum.—This is, perhaps, the most interesting of all the outdoor Rhododendrons, as it is frequently in full flower at Christmas. It makes a tall, spreading bush, and the blossoms are of a pleasing shade of bright red. They are often damaged by frost. The best of all for forcing.

Pink Pearl.—It is quite safe to assert that there is more of this beautiful Rhododendron grown than of any other variety. It has very large flowers, borne in large trusses, of flesh pink colour, the delicacy of which it is impossible to describe. The habit is not quite all that one

usually considered a tender kind, it grows and flowers freely in sheltered positions in the neighbourhood of London. It is at its best in May. H.

SEASONABLE NOTES ON AURICULAS.

AT the beginning of April a few of the alpine varieties opened their flowers, and by the end of the month a grand display will be the general rule if the plants have received proper treatment during the rest of the year.

This is the time when the grower will realise whether he has been successful or otherwise. Strong, healthy spikes that need little or no support, with well-defined flowers, denote good cultivation; but where they are weak and of poor colour, something is wrong, and this must be rectified during the coming year.

General Treatment.—Now that the plants are producing their flower-spikes, it will be advisable to look over them daily to ascertain if any require water. On no account ought they to become dry at the base, or the blooms will be poor in quality and lacking in colour. Good colour is one

of the chief attributes of the Auricula. Plenty of ventilation is necessary, which not only improves the plants, but the cool air will prolong the life of the flowers. When the blooms begin to open, the early morning sun is beneficial; but later in the day a thin shading will be needed. Directly all the flowers are expanded, the sun's rays must not reach the plants, or the flowers will soon be ruined.

How the Flowers May be Shown to the Best Advantage.—Some growers like to exhibit their plants, while others keep them at home for the pleasure of themselves and their friends. The following remarks are applicable to both. There are exceptions to every rule, and a few spikes will, in all probability, require the aid of a thin green stake. This should be applied in the early stages of growth, or at any rate before the stem is bent over by the weight of the flowers.

Thinning Flowers.—Some of the trusses will contain more buds than can properly develop, and in such instances it will be necessary to thin them, but only two or three should be removed

Seed-Saving.—The only way to obtain new varieties is by seed. Careful seed-saving is most important, and no indiscriminate crosses ought to be made, while it should be borne in mind that a good pollen parent is as essential as a first-class seed-bearer. It is always advisable to keep the classes to themselves, such as mating a green edge with another of the same kind, and so on. With the alpinas a variety with a yellow centre should be pollinated with another plant having a centre similar in colour. Each flower must be carefully crossed, and the anthers ought to be removed from the selected seed-bearer before they expand. T. W. B.

DAFFODIL NOTES.

BY THE REV. JOSEPH JACOB.

Bibliographical Items.—A few notes on books wholly concerned with the Daffodil may be of interest. I recently submitted a list of them to

grounds for his statement, for the late F. W. Burbidge was unable to come across it, and borrowed old Peter Barr's in order that his wife might copy it out in manuscript. I am the proud possessor of this, which has a note in Burbidge's own handwriting stating the above fact. What, however, gives me even more satisfaction is the possession of an original, which I accidentally came across in a second-hand bookshop "somewhere in England," and which, on my producing and leaving certain round, flat objects, I was allowed to carry away. Haworth's monograph is the first attempt to classify in a botanical way the Daffodil family, and as such must always have a special interest, although more recent workers have proved many of his deductions to be wrong. His main fault was classifying as species forms which were only varieties. Another item which has a little history attached to it is "Ye Narcissus or Daffodyl Flower," by F. W. Burbidge. This was published by Barr and Sons in 1884. Anyone who has

examined it cannot fail to have been struck with the curious, large black ornamentations on the tops of many of its pages, and also with a somewhat aggressive one on the cover and on the inside title-page. Thereby hangs a tale. Hartland of Cork had already brought out a list which he called "A Little Book of Daffodils," when Barr and Sons published their work, "Ye Little Booke of ye Narcissus," &c. The fat was in the fire, as those of us who knew old Baylor Hartland can well imagine. And the end of it was that the offending words, "Ye Little Booke," had to be obliterated. I possess a copy of the original issue with no obliterations whatever; also one with the obliterations done in quite a different style from what they were later; and, lastly, what I may call an ordinary copy. The book is scarce, but it is sometimes to be met with in second-hand book catalogues. I need hardly say that it is a veritable mine of information on all that pertains to the Daffodil. It is not everyone who knows about the "little breeze" that its first appearance caused.

N. eyclamineus.—Many people, like myself, have doubtless found this variety difficult to manage. Wise people, however, live and learn. I

hope that I have now found out how to manage it, from what I saw in the Rev. W. Wilks' charming coppice garden at Shirley, where, on a light soil, carpeted with Ivy, numerous colonies were flowering in rude, vigorous health. No bulb had ever been planted. Seed had been sown when he went there six or seven years ago. Now the plants seed themselves, and are spreading in many directions. Evidently cyclamineus requires light soil, the nurturing influence of friendly roots, and slight shade overhead in summer.

Flowers at the Royal Horticultural Society's Hall on March 30.—Daffodils are sadly hanging fire this year. Whereas on the corresponding date of last year the season was at its height, I can only report of the current one that it has hardly begun. The only open-air grown flowers came from Devonshire or Cornwall. The sole group was that put



HARDY RHODODENDRONS GROUPED FOR EFFECT.

at one time. A pair of small scissors or tweezers may be used for this purpose. The alpine varieties do not require a lot of thinning, but show kinds are subjected to more severe treatment, particularly the greens, greys and whites. If a fancier can secure four or five good flowers upon each stem, he is generally satisfied; but those who do not exhibit may leave one or two more, though overcrowding must be avoided. The selfs are also thinned, but not quite so severely. A fine truss of bloom should be the object, and with this in view few will go wrong in removing superfluous buds. A few points to be observed by the exhibitor are careful handling of the plants to prevent injury to the flowers and the farina or meal upon the leaves and stems; see that the pots are clean and have a neatly written label, and put a layer of fresh moss around the base of each plant.

my friend Mr. Harman Payne, whose knowledge of purely *florist* garden books is all-embracing, which was returned with the remark "perfect." Far and away the rarest is the "Narcissinearum Monographia," by A. H. Haworth, which was published in London in 1831. It is called the second edition on the title-page, but, all the same, it is the first and only one which has a separate existence as a book or pamphlet by itself. The first edition was issued as a supplement to the first volume of the second series of Robert Sweet's "British Flower Garden," and this second edition was brought out to correct certain errors in the first. As Quaritch might say in one of his lists, it is excessively rare, so rare, in fact, that I wonder if he has ever had one for sale. The late Peter Barr possessed a copy, and he said he believed it was the only one in existence. He had good

up by Messrs. Barr and Sons. It contained many beautiful seedlings—for the most part trumpet forms. I thought the *tout ensemble* of the whole excellent; so did the Narcissus committee, who awarded it a silver-gilt Flora medal. Two charming cyclamineus hybrids were shown for the first time, and as they are increasing every year, there is a likelihood of their growing into stocks. Golden Arrow is very similar to the hybrid pictured in THE GARDEN for March 27. The dimensions are very nearly the same, so is the colouring. The other one is a much deeper shade of colouring, and has wider segments and a shorter but more flanged corona or trumpet. There are now six plants of this, so I hope it will remain with us.

A most interesting little Tazetta appeared in public for the first time, under the name of *T. canaliculatus*. This is a wild form from the Riviera. The stems are 7 inches or 8 inches high, the perianth is much reflexed, and the colouring is that of *Gloriosa*. From Moggridge's account of it in his "Contribution to the Flora of Mentone," one would have expected a starry perianth, for no mention is made of any reflexing.

Messrs. Carter's pretty display of Daffodils and Crocuses, and further comments on that of Messrs. Barr and Sons, I leave till next week.

A BEAUTIFUL HARDY PLANT.

MECONOPSIS WALLICHII.

IT is a tribute to this, the noblest and best of its tribe, hailing from the mountains of Sikkim at elevations varying from 12,000 feet to 14,000 feet, that, as a garden plant, it is also one of the most tractable. Often seen in the highest perfection—though never, perhaps, in sufficient numbers—rearing its glorious pyramids of mauve-coloured, saucer-formed flowers to a height of 7 feet or thereabouts, it is at such times a plant of commanding presence and high distinction, one which no flower-lover could ignore, while many would be fascinated by its charms.

While the accompanying illustration will afford some idea of the form and outline of this fine species at flowering-time, neither this nor a pen-picture could possibly portray a tithe of the beauty of which it is possessed. It is at such a time that the scores or hundreds of its 3-inch wide, mauve-coloured flowers appeal, their plenitude as forcibly, perhaps, as their indescribably beautiful colour. In these respects it is a plant to be seen, and remembering its beauty may remain for weeks, there is abundant opportunity for intimate acquaintance.

In winter-time its well-developed rosettes of leaves would attract any plant-lover. In their highest excellence these may reach to 2 feet or more across, their grey-green ground colour shrouded by innumerable soft reddish brown hairs, ever a conspicuous feature in rock garden scenery.

Biennial in character, or to be so regarded from the cultivator's standpoint, it is a subject

to be dealt with on definite lines if success is courted. A tantalising fact in respect to this species is the apparently large number of good seeds a plant yields and the comparatively small proportion of which vegetate. Other members of the genus have their idiosyncrasies, and, so far as I know, the above is the general experience of this particular kind. In any case, seeds are best sown a few weeks after maturing, September and October being perhaps the most suitable time, and preferably in a greenhouse temperature of 45°, which assists—one might say ensures—a more prompt vegetation. Sown under cold frame conditions, the results are less satisfactory and vegetation slow. So treated the earliest seedlings appear in about a month, and, pricked off with care when large enough, should be grown

about equal parts. Coolness and summer moisture are important. Those desiring a good seed crop should hand fertilise the earliest flowers with a view to obtaining the same. E. H. JENKINS.

THE MOST USEFUL DECORATIVE PALMS.

THE last twenty-five years have seen a great increase in the number of Palms grown for decorative purposes. In some of the large trade establishments the more popular kinds, such as the Kentias, are grown by hundreds of thousands, and so cheaply are they sometimes disposed of that well-furnished specimens may be frequently seen hawked around the streets of London and suburbs.

The various Palms are all increased by seeds, which are sent to this country from various quarters of the globe. As the germinating power of some of them at least quickly weakens, the seeds should be sown as soon as possible on receipt. For Palms in general a loamy soil is more or less necessary, a suitable compost for the free-growing kinds being from two-thirds to three-quarters of good turfy loam, according to its constituency, and the remainder made up of leaf-mould, well-decayed manure and sand.

The present is a very suitable season to repot the different Palms that require it, as the young roots will soon take possession of the fresh soil. With regard to repotting, it is as well to bear in mind that good specimens may be grown in comparatively small pots, provided they are well supplied with water and given an occasional stimulant during the growing season. This is often a very important consideration, for when Palms are used for decorative purposes indoors, they are frequently dropped into vases or jardinières, many of which do not permit of a very large pot being used.

In most Palms the roots are of a deep descending nature, and find their way at once to the bottom of the pot, around which they coil, and in time will lift the ball of earth entirely. When repotting such as these, it will be found that an ordinary flower-pot is not sufficiently deep unless a very large pot is used, and then the plant will be what is termed "overhatted," that is to say, the width of the pot will be out of all proportion to the plant growing

therein. Furthermore, Palms do not like a mass of soil around their roots, which is the case when inordinately large pots are used. To overcome this difficulty, I have had pots made a good deal deeper in proportion to their width than those usually met with, and found them a great advantage in every way.

Palms of all kinds thrive best in a fairly shaded structure with a considerable amount of atmospheric moisture, so that they may be freely syringed, particularly during hot weather. They must also be liberally watered at the roots, but



MECONOPSIS WALLICHII, A BEAUTIFUL HARDY PLANT FROM SIKKIM WITH LILAC BLUE FLOWERS.

on steadily throughout the winter under similar conditions, potting them on as they appear to need it.

These earliest seedlings by the ensuing May should be strong examples in 5-inch pots ready for their permanent positions. Developing during the year of planting to the extent already indicated, the plant commences its flowering in July of the following year, remaining attractive for weeks. At no time during the early stages should the seedlings be coddled or forced. A sturdy growth is essential to success. The plant revels in rich vegetable soils—peat, leaf-mould and loam in

at the same time stagnant moisture is very injurious to them. In the case of all Palms, a sharp look-out must be kept for scale insects, to which they are somewhat liable. Should any of these pests put in an appearance, they may be got rid of by sponging with warm water in which some soft soap has been dissolved, while, if necessary, the scale should be loosened with a pointed stick, taking care at the same time not to injure the leaves. It will be found that in the case of these pests "a stitch in time saves nine," as if they are allowed to increase, which they do rapidly, it is not so easy to get rid of them.

Palms in the Dwelling-House.—

Complaints are often made that Palms purchased in a perfect state soon become unhealthy when taken indoors. This may be caused by various circumstances, but probably the most general is that in order to obtain good saleable plants in as short a time as possible, they are subjected to a considerable amount of heat and moisture to push them along. Naturally, when taken into the dwelling-house, and particularly if the weather is cold and fires extensively used, they feel the change very much, and the leaves become more or less yellow. To prevent this as far as possible, a good plan is to purchase the plants about the end of May, when the difference in temperature will not be so great as when the weather was colder, while there is ample time before the winter comes round for them to become used to their surroundings. Except during very cold weather, Palms in the dwelling-house should be sponged about once every ten days with lukewarm water. It is very essential that the under as well as the upper sides of the leaves are so sponged, as this tends to keep away insects. In the summer especially they need to be well watered, but on no account must the water be allowed to stand in the saucers or jardinières in which they are placed. A good plan, when the plants are but few and can be conveniently handled, is to take them to the sink or some other convenient place, soak them in a pail of water, and allow them to drain before returning them to their quarters. In the summer the plants should be so situated that the sun does not shine full on them after eight o'clock in the morning. During a warm, soft rain they are benefited by being stood out of doors. When the pots are well furnished with roots, an occasional stimulant will be helpful. Some of the chemical plant foods that have little, if any, unpleasant smell are the best. In winter, when the nights are cold, do not leave the plants in the window, as they are much safer in the centre of the room.

Among the most suitable Palms for decorative purposes, the first place must be assigned to the Kentias, which are so universally grown. Of the two species, the taller and bolder is *K. forsteriana*, while *K. belmoreana* is of dwarfer

growth, with more finely divided leaves. Others that can be recommended are *Chamærops humilis*, a pretty little Fan Palm from Southern Europe; *Cocos weddelliana*, with much divided leaves, which needs more heat than most of the others; *C. flexuosa*, a tall grower with pinnate leaves, much used for the background of groups and similar purposes; *Corypha australis*, a Fan Palm with spiny leaf-stalks, bearing exposure to draughts better than most Palms; *Geonoma gracilis*, somewhat like *Cocos weddelliana*, but more graceful, yet needing the same treatment; *Latania*



FORSYTHIA INTERMEDIA SPECTABILIS, A VERY FREE AND EARLY FLOWERING HARDY SHRUB.

borbonica, a large-leaved Fan Palm more grown at one time than it is now; *Phoenix* (Date), the most ornamental of which are the large-growing *P. canariensis*, the medium *P. rupicola*, and the small but exceedingly graceful *P. Roebelini*; and *Seaforthia elegans*, which before the Kentias were so general was much grown, but it is not now generally met with. It attains quite tree-like dimensions.

NEW AND RARE PLANTS.

FIRST-CLASS CERTIFICATES.

Odontoglossum Mars.—A hybrid remarkable for colour, fine form, density of flowering, with blossoms of great substance. Having a certain leaning to *O. illustrissimum*, the shapely flowers, with well-imbricated sepals and petals, are of brownish crimson hue, finely bordered with purest white. The lip is also white. A conspicuous feature is the pronounced bloom overlying the dominant colour, this imparting a richness that is quite unique. Of sturdy habit, the branching spike is erect, the flowers of large size, arranged with unusual density. It is a very handsome variety.

Lælio-Cattleya J. F. Birkbeck (*C. Mendelii* × *L.-C. Henry Greenwood*).—A variety unusually large in all its parts. The sepals and petals are of blush pink tone, the handsome fringed lip of rich purplish crimson, and the throat yellow lined. These two superb novelties were exhibited by J. Gurney Fowler, Esq., Brackenhurst, Pembury, Kent (gardener, Mr. J. Davis).

AWARDS OF MERIT.

Forsythia intermedia spectabilis.—

Of a few shades deeper yellow than the well-known *F. suspensa*, this fine flowering shrub is also characterised by greater density of blossoming, the exhibited example, 5 feet high, being laden with its golden yellow flowers. Quite a valuable plant among the earliest flowering hardy shrubs of the year. From Mr. M. Prichard, Christchurch.

Carnation Mrs. G. Lloyd Wigg.—

A pure white sport from *R. F. Felton*, and those who know this fine variety will not require any further recommendation. Strangely, too, for a sport, it is endowed with a pronounced Clove perfume, which the original does not possess in like degree. The flowers are handsome in size and pure in colour. From Messrs. W. Wells, Limited, Merstham.

All the foregoing plants were shown before the Royal Horticultural Society on the 30th ult., when the awards were made.

THE MOUNTAIN TULIP.

(*TULIPA MONTANA*.)

The rock garden is made much more attractive by planting among the other plants some of the dwarfer bulbous flowers which supply features distinct from those usually possessed by the flowers which are the general objects of the taste of the alpinist. These should be dwarf in stature, bright or pleasing in other points besides colour, and should also be fitted to become permanent occupants of the rock garden with as little need of lifting and replanting as possible.

The dwarf Tulips afford us some flowers of this category, and among them a suitable and charming subject is offered by *Tulipa montana*, a very dwarf species only a few inches high. It has nice scarlet flowers, adorned with a black and yellow blotch at the base of the bloom. It is thoroughly hardy, but likes a rather sandy soil and a sunny position in a sheltered nook which is well drained. It flowers during March and April.

H. P.

S. A.

SEASONABLE NOTES ON CHRYSANTHEMUMS.

THE most forward plants will now require considerable space, and as frame accommodation will be limited very considerably at this time, only those plants that are really required should be retained in them. The wise amateur cultivator should make a list of all the plants he will need for various purposes, namely, for exhibition, for greenhouse or conservatory decoration, for late flowering, for the supply of cut flowers, and for the open border. It is astonishing how the total swells when even a few pots of each section are grown. The summer accommodation may be ample, but the space under glass in the autumn very limited. All these points must be considered. It is much more satisfactory to grow just the number that can be easily dealt with and given proper treatment throughout than to have too many.

A Brief Guide.—To obtain twelve cut blooms for exhibition, grow twenty-four plants in not fewer than eighteen varieties; if some are duplicated, in fifteen varieties. To have six blooms on long stems for vases, one variety, six plants should be grown. To be able to stage eighteen blooms, six varieties, three blooms of each, grow at least thirty-six plants in not fewer than nine varieties. For cut blooms for home vases and for plants for decoration, specimens bearing from six to fifteen flower should be the rule; then the required number of plants can be easily estimated. The single-flowered sorts should be grown on the same principle as the decorative varieties, as the highest class blooms are usually from late-formed and terminal buds.

Repotting Late-Struck Plants.—At this season, when the newly rooted cuttings are in very small pots, close attention must be given to the matter of watering and repotting. I have seen the small plants, whose roots have been constantly dried up—almost parched—become quite hard of stem and small of leaf before the end of April. Such plants rarely, if ever, make stocky, robust specimens. When in a fit state to be repotted, give them the necessary shift without a day's delay.

General Repotting.—This work has a direct effect on the first break caused by the formation of a bud in the point of the plant. If the plants remain potbound for a few days or a week, the formation of the bud is hastened. Then on the resultant side shoots the important and keenly looked-for crown buds show too soon, and if retained "taken," develop into badly coloured, coarse blooms. If removed, the later buds that form are inferior as regards size, and develop probably too late for a special purpose. Only in the case of naturally late-flowering varieties does the potbound condition of the plants have any beneficial effect in this matter. By probably causing the first break a week earlier in the spring, the coveted first crown bud is secured early in August; then, other matters being favourable, all is well.

Green and Black Aphides.—Cultivators must be on their guard against these pests, as they increase so very rapidly and do much damage to the young shoots. If allowed to infest the young shoots for even a few days, they cripple the growth, and in later stages the expert can point out where the check occurred. Very fine Tobacco powder sprinkled on the affected parts and syringed off two days later usually frees the plants of green

aphides. For black aphides the ends of the shoots should be held over a saucer while the powder is put on, as if the plant retains its upright position, the pests drop wholesale to the lower leaves and then regain their place at the top. There are valuable insecticides to be obtained from firms advertising in *THE GARDEN*, which are very efficacious if used according to the instructions given with them.

Stopping Plants.—Many of the naturally late-flowering varieties should be stopped during the latter part of April; that is, the point must be pinched off if a bud does not form, to cause a natural break.

AVON.

ROSE-GROWING IN TOWN GARDENS.

BY the time these lines appear in print the much-debated question as to which is the most favourable time for cutting back one's Roses will in many cases have been satisfactorily settled. The operation should depend upon the calendar, and is best fixed definitely at a time which experience has shown to be suited to a particular district. Those who would postpone the operation because the weather happens to be cold at the time can hardly appreciate the effect of it. It is the temperature some three or four weeks after pruning that concerns us most, for then the eyes to which the growths have been cut back will have developed sufficiently to be affected. As we cannot foresee these cold spells in store, it is best to keep strictly to the week appointed.

From now onwards is the time for those rosarians who are also diarists to get busy. Gardeners who have not cultivated this habit should learn to do so, and they will find that the few minutes taken up each day in noting progress will be amply rewarded. With Roses it is especially interesting to compare the time of appearance of one's favourites from year to year, the length of their flowering periods, and other matters of import. To the exhibitor the practice is valuable, for there are no other means by which the duration of flowers can better be gauged than by studying the progress made in previous years, and he can also learn to estimate as nearly as it is possible to do the time which the buds will occupy in development.

The winter rains will have beaten down the soil upon the surface of Rose-beds until it has become caked hard. No time should be lost in loosening it, and those who intend to add a mulch of manure to their beds should defer doing so until the hoe has been used. This early aeration of the soil has a most beneficial effect upon the roots, which are now coming to their most active period, and require all the stimulating that one can give them.

From the Rose-grower's point of view the past winter (in the Southern Counties, at all events) has been anything but unfavourable, and there are very few losses. The frosts have been of such short duration that they have proved almost harmless, and many of the Teas have not yet shed last year's foliage completely. Cases of flowers opening out of doors have been almost continuous. Perhaps one of the most exceptional was that of Mme. Edouard Herriot, of which I saw a fully expanded bloom in early February. It was poor in colour, but quite recognisable, and this certainly goes to prove the reliability in opening of this beautiful variety. P. L. GODDARD.

NOTES ON CARNATIONS.

Carnations in Mixed Borders.—The Carnation is one of the plants suitable to furnish those parts of the mixed flower border occupied by early flowering bulbs, and, as soon as these are over, the former may be planted. The ground need not be loosened, and manure is best supplied by surface-dressings from time to time. In case anyone should feel qualms about planting in firm soil, there is no reason for such, firmness being almost a necessity in the rooting medium of the Carnation; and as showing that the writer has no fear in that respect, it may be noted that a lot of the florist's type of Picotees and Carnations have recently been planted on ground undug since the previous crop. The plants should not be very close—15 inches apart, perhaps—and any time in April or early in May a few seeds of Virginian Stock sown in the intervening spaces will, a few weeks afterwards, render the groups gay.

Growing Border Carnations in Pots.—It may be news to some that the Carnation has been cultivated in pots for centuries, and for long none but singles and those which the florist of the day would designate "rubbish" were planted in the open. Those who have seen the extensive cultivations of the late Mr. Martin Smith and Mr. Douglas need not be told of the striking beauty of housefuls of Carnations of all types, and these two cultivators did much to popularise this very old way of treatment, which had fallen about the middle of last century into desuetude. Neither employed such large pots as earlier cultivators, and very nice material can be produced in 7-inch pots, while 9-inch pots are quite large enough to embrace triples.

The Best Soil.—The old growers, again, were very particular regarding composts, in England perhaps following instructions contained in two French monographs of the seventeenth century. In a translation of Van Oosten's "Dutch Gardener," "Horse-dung that is quite rotten" is recommended as the one material necessary. So impressed do our own cultivators seem to have been with the value of this material that Maddocks at the end of the eighteenth century, made his compost of one-half of rotten horse-manure, one-third of sound loamy earth, and one-sixth of coarse sand. Hogg, thirty years later, used five parts of loam, ten parts of horse-manure from frames, and one part (the minimum) of coarse sand. Anyone who can grow the common Zonal Pelargonium will find this section of Carnation to succeed very well in a similar compost. It must be understood that the manure used by the old practitioners was thoroughly rotted. Some recommend that it should not be used till reduced to the state of "mould" or earth, and also it must be remembered that the value of rotted turf was not then known, the large quantity of manure no doubt being employed to keep the soil open, and, indeed, the whole method of potting was different.

Manure in the Soil.—For my part I do not care about using any manure in the compost. It is an easy matter to apply it on the surface or in water as the plant requires it. It is a curious fact that such a hardy plant as the Carnation undoubtedly succeeds better in the North under the shelter of a glass roof than it does when stood in the open without any protection during the summer months. The value of roof protection is enhanced by the plants flowering earlier than those in the open.

Prestonkirk.

R. P. BROTHERSTON.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Midseason Vines.—The shoots on Vines in active growth will need constant attention in regard to stopping and training. If the Vines are growing quite near to the glass, much care and patience is needed in securing them to the trellis. The work ought to be done, if possible, either during dull weather or late in the afternoon, as there is considerable danger of the shoots breaking when the sun is shining full on the house. When the bunches have set, there should be no delay in removing the surplus bunches. At this stage the borders must be examined to see if they require water, and if it is needed, they must be slightly forked up and thoroughly soaked with diluted liquid manure. At this time of the year the berries should be thinned with as little delay as possible, as they swell very quickly.

Late Muscat Vines.—Before the Vines come into flower, the borders must be watered, if necessary. All shoots which require stopping should be attended to before flowering commences, so that there shall be no check to growth while the bunches are setting. If the shoots are not touching the glass, tying ought to be deferred till the bunches have set, as the berries set better when well exposed to the light. During the flowering stage a mean temperature of 70° must be maintained, and the ventilators carefully manipulated at all times to prevent any sudden fluctuations of the temperature.

Plants Under Glass.

Euphorbia jacquiniæflora and E. pulcherrima.—As soon as cuttings are available, they must be inserted. They require a brisk bottom-heat, or many of the cuttings will fail to root. Insert the cuttings singly in 2½-inch pots, either in fine sand or a light sandy compost. Further batches of cuttings should be inserted as they become ready.

Panicum, Isolepis gracilis and Pilea muscosa.—These are excellent plants for the edges of groups, and should be propagated annually. *Panicums* and *Pileas* may be propagated easily from cuttings inserted in 3-inch pots. *Isolepis gracilis* can be increased by division of the old plants. These divisions make excellent plants if potted into 3-inch pots and placed in a warm, moist house for a few weeks.

Crotons and Dracænas.—Recently rooted plants must be grown on in plenty of heat and moisture. Crotons need a position in the lightest part of the stove, in order to produce good colour in the foliage.

The Flower Garden.

Violets.—Young plants that were rooted in frames last autumn may now be planted out. A border which is somewhat sheltered from the sun should be chosen for the summer quarters of the Violet, as in such a position the plants are not so likely to be attacked by red spider. The ground which was dug and well manured some weeks ago must now be forked over, and the surface made level with the rake. The single varieties may be planted about a foot apart, and the doubles a little closer. If young plants are not available, the old ones may be divided, selecting the most promising crowns for planting. When planted, keep them regularly supplied with water, and during warm, sunny weather spray them every afternoon with a fine-rosed can. A dusting of soot occasionally will help to keep red spider in check, and will also act as a valuable stimulant.

Sweet Peas.—Seedlings in pots or boxes may now be planted out. Put them in shallow trenches, and, should the soil be on the wet side, a little dry soil from the potting-shed will facilitate the work. When planted, the young growths must be supported with small twigs, and, to keep birds off, strands of black cotton should be placed over the rows.

Pansies.—Seeds can now be sown for raising plants for blooming in the autumn. Varieties that are worth perpetuating may be propagated by dividing the old plants, inserting the best portions in a shady position outdoors.

The Hardy Fruit Garden.

Aphides.—A sharp look-out must be kept for green and black fly, which play havoc among crops of stone fruit if they get well established on the trees. Their presence may be detected by the curling of the leaves. To keep the trees clean, there is nothing better than a systematic method of spraying. A mixture of soft soap and sulphur will be found safe and effective in dealing with these pests.

Red Spider and Thrips.—These are more difficult to deal with than aphides when once they obtain a footing on the trees, and a stronger insecticide must be used to destroy them. The Cherry is often attacked by small caterpillars, which roll themselves up in the leaves. These should be sought for and picked off with the fingers, for if allowed to remain they will attack the fruits as soon as they have set.

The Kitchen Garden.

Spinach.—To ensure a good supply of this valuable vegetable, liberal sowings must be made. The old plantations may yet be induced to supply plenty of good leaves by using the hoe freely between the rows.

Peas.—Further sowings must be made to ensure plenty of pods during the month of July. The ground for the later sowings should also be prepared, if not already done. Attend to the staking of the early plants before there is danger of injury by rough winds, and during showery weather dust the rows with well-seasoned soot to promote a healthy growth.

Onions.—The seedlings that were raised in boxes ought now to be ready for planting out, providing they have been well hardened off. Endeavour to transplant them with as little disturbance to the roots as possible. Sprinkle with water in the afternoon, should the weather be dry, till they have become established.

Leeks.—The earliest batch may now be planted in ground which has been thoroughly prepared. If high-class Leeks are to be grown, they should be grown in trenches and treated much the same as Celery.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

Fruit Under Glass.

Strawberries.—As the fruit shows signs of ripening, feeding with liquid manure and fertilisers should cease. Although the plants would quickly suffer from lack of moisture, overwatering at this stage must be avoided if the fruit is to be of good flavour. Plenty of fresh air is another very important factor, as well as sunshine, in the production of well-coloured and highly flavoured fruit.

Heating.—Excessive heating of the pipes in fruit-houses is very injurious, and tends to encourage insect pests. Except on cold or damp days, the fires should be checked early in the morning, and not disturbed until well into the afternoon. At the same time, it is never advisable to allow the fires to go completely out, as a sudden change in the weather may require heat to be quickly generated.

The Hardy Fruit Garden.

Fruit Plantations.—The hoe must be used freely, even if weeds do not exist, as this is a good mode of preventing too rapid evaporation of moisture from the soil. Where the soil has become caked, hoeing also allows a free passage for the air.

Strawberries.—As the plants are now growing freely and will soon be forming their flower-trusses, a little extra help might be given in the form of some artificial manure. After giving some to each plant, the surface should be lightly broken up either with the hoe or fork.

Grafting.—This operation ought now to be attended to where it is purposed to use the stock of some undesirable kind of fruit tree to better advantage by grafting it with an improved variety. There are various methods, but the most important point to remember is that the stock to be used must be showing evident signs of growth, while the scions should be almost dormant.

Plants Under Glass.

Primulas.—If a succession is desired of either the *sinensis* or *stellata* varieties during the winter and spring, a start must now be made by the sowing of seed. Plenty of good leaf-soil and silver sand should predominate in the compost required for these plants while they are small. A warm greenhouse will be a suitable place in which to germinate the seed.

Decorative Chrysanthemums.—The majority of the plants will be ready for potting on into 6-inch pots, and as far as possible should be completed during the next ten days or fortnight. The potting compost ought to be fairly rich, as it will have to sustain the plants until the end of May or early in June. These after being potted should be stood on ashes in cold frames. A dusting of soot on the ashes will keep worms and vermin in check.

Plumbago rosea.—Plants which have been resting ought now to be returned to a stove temperature, when they will quickly become active again. As the young growths appear they should be made into cuttings until sufficient stock has been obtained. This plant will grow quite well if shaken out and potted on for a second season; but as cuttings are so easily rooted, it is best to raise a batch of young plants each year.

The Flower Garden.

Roses.—After the pruning is completed, the beds and borders should receive a dressing of manure. Well-rotted cow-manure with as little litter as possible is best; but, failing this, some reliable Rose fertiliser may be used. Care must be taken that neither buds nor roots are injured during the forking in of the manure.

Nemesias, to commence flowering in July, ought now to be sown. The *Nemesia* is an annual difficult to surpass for brilliancy of colour, also an almost perpetual flowerer from the time it commences right on until the frosts of October or November finish its career.

Sweet Peas.—The ground having now settled and become firm, a start may be made to put out the young plants. If extra fine flowers are desired, they should not be planted at a less distance apart than a foot to 15 inches. Slugs and snails are very fond of Sweet Peas, and when planted they ought to be surrounded with soot and lime. If the weather should prove very wet, the soot is apt to lose its effect by being washed into the soil, and must be replaced by a liberal application of sharp, gritty sand or wood-ashes.

Sunflowers must be sown so as to get nice-sized plants for setting out by the end of May. After germination has taken place, they should be kept as cool as possible, and try to keep the plants dwarf by placing them near the glass.

The Kitchen Garden.

Spring Cabbages.—As these are now quickly developing, a little more help may be given by applying a small quantity of nitrate of soda round each plant. When this has been done, the ground should be gone over with the Dutch hoe. This will benefit the plants, besides keeping down weeds.

Celery.—As the young plants become large enough to handle, they must be pricked off closely together in boxes. Here they may remain until a frame can be spared for them, which will give them more room to develop into good plants for planting out later on.

Spinach.—More seed must be sown to keep up a succession of this vegetable until the season has become too hot for its successful cultivation. The crops already growing should receive a good hoeing.

Lettuces.—Where one has a sheltered border at the foot of a south wall or glass house, a portion of it should be used for growing early Lettuces to succeed those grown in frames and on hot-beds. Plants from seed sown our or five weeks ago are now ready to put out on this site. As slugs are bound to attack them, soot must be catered around as a means of prevention.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

Offices: 20, Tavistock Street, Covent Garden, W.C.

ANSWERS

TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

ANNUALS IN BORDER (W. D.).—The simpler and more effective way of arranging the plants would be to form crescent-shaped bays along the whole of the front, outlining them with the dwarfest things, as *Alyssum* or *Tagetes signata pumila*, and planting the front bays with *Nemophila*, *Eschscholtzia*, *Candytuft* (white), *Phacelia*, *Candytuft* (carmine) and *Nemesia* in the order named. To do this throughout the border it might be necessary to repeat the arrangement, employing a distinctly taller subject, such as *Godetia*, for the centre. For the back the *Larkspurs* will be available, and you might arrange these alternately with the *Penstemons* if you have enough. Take care that you keep all blue, mauve and allied shades well apart, whether at back or front, and work generally for colour contrasts. The *Shirley Poppies* will enable you to do this, particularly if you have them in separate colours. You should arrange the colours on a plan, with size of each group, prior to planting, though it is time the seeds of many were in the ground.

TREES AND SHRUBS.

SHRUBS FOR STONY SOIL (E. L.).—Shrubs such as *Berberis stenophylla*, *B. Darwinii*, *B. Aquifolium*, *Cistus laurifolius*, *C. monspeliensis*, *C. Loretti*, *C. ladaniferus*, *C. villosus*, *Brooms* in variety, particularly *Cytisus scoparius* and varieties *sulphureus* and *andreaeanus*, *C. albus*, *C. praeox*, *C. biflorus*, *Genista hispanica* and *G. virgata*, also *Tree Ivies*, *Olearia Haastii* and *Tamarix* in variety, may be expected to thrive. Place a little good soil about the roots at planting-time. *Rhododendrons* are not likely to do as well as the shrubs here mentioned.

THE GREENHOUSE.

PRIMULA OBCONICA LEAVES FOR INSPECTION (J. Mac).—The markings on the leaves of the *Primulas* are due either to red spider or to leaf-hoppers, we think possibly the latter, and if so, fumigation is called for. These insects are small, winged in their last stage, and run nimbly over the leaves. They are allied to the green flies and *Psylla*. Red spider can be kept down by spraying with water, so as to prevent the air from becoming too dry.

WHEN TO STOP CHRYSANTHEMUMS AND TAKE BUDS (Fresh Reader).—Hon. Mrs. Lopes, stop early in April, take first crown bud. W. Rawlings, stop late in May, first crown. Queenie Chandler, stop early in April and again the first week in June, second crown. Mrs. Gilbert Drabble, early propagated plants, stop in April and first week in June; later plants, natural break, first crown. Lady Talbot, stop early in May, first crown. D. B. Crane, stop early in April and on May 10, first crown in August. F. S. Vallis, stop early in April and middle of May. The remaining varieties in

your list should be allowed to make natural breaks and first crown buds taken.

ORCHID FOR NAME AND TREATMENT (E. S. Martin).—The name of the Orchid of which a flower-spike was sent is *Dendrobium speciosum*. It is a native of Australia, and was first introduced as long ago as 1823. Given suitable treatment, it should flower every year. The temperature of an intermediate house just meets its requirements—that is to say, a structure where in the winter the thermometer ranges from 55° to 65°, with a corresponding rise as the days lengthen. Such a place will suit most of the *Cattleyas*; in fact, it is often referred to as the *Cattleya-house*. This *Dendrobium* does best in baskets or pans, and when in a thriving state annual repotting is not necessary. When it needs repotting, it should be done soon after flowering and when the new growth is partially developed. A suitable compost for this *Dendrobium* is good fibrous peat or *Osmunda* fibre, with a fair sprinkling of sphagnum moss. If it does not need repotting, the plant is often benefited by taking away any of the old soil that can be so treated without unduly disturbing the roots, and top-dressing with some fresh material. From now onwards, if the plants are well furnished with roots, plenty of water must be given, while they will only need to be shaded from hot sunshine, a full light being very essential to their well-doing. By the end of July or thereabouts the growth will be completed, when the plants must be gradually inured to full sunshine and less water given. At that time they may be placed in a light, airy structure, but returned to the intermediate house before the nights get cold. As soon as the flower-spikes make their appearance, more water and a slightly higher temperature will be beneficial.

ROSE GARDEN.

GROWTHS ON ROSE ROOT (Puzzled, Sheffield).—The growths on the Rose root are the result of an attack of the bacillus of crown gall, *Bacillus tumefaciens*. This is present in the soil and invades roots, where it sets up irritation, resulting in the production of a large swelling. It is not at all clear whether this attack results in any real damage to the plants. We illustrated a remarkable example of it in our issue for December 12, 1914.

KITCHEN GARDEN.

CABBAGE PLANT FOR INSPECTION (Zielie).—The Cabbage is not attacked by the club-root disease, which is due to a fungus, but by the Cabbage gall weevil, a minute beetle which lays its eggs in the Cabbage stem. The egg hatches into a grub, which you may see on cutting open one of the swellings. The best way of avoiding future attacks will be to sprinkle sand moistened with paraffin along the rows of young plants.

CELERY DECAYING (Mercury).—The common cause of the rotting of Celery is the attack of a bacterium. No cure is known, and the only way to avoid the trouble is to choose the hardier varieties, especially the red ones.

MISCELLANEOUS.

GRUBS FOR IDENTIFICATION (Puzzled).—The grubs sent are the larvae of the two-winged fly called the St. Mark's fly, a red or black bodied, sluggish fly which appears in considerable numbers in gardens about St. Mark's Day. The grubs feed for the most part on decaying vegetable matter, and only when in great numbers damage roots. We suspect your soil is somewhat sour, and recommend you to give it a dressing of lime, after which, we think, you will not be troubled with these grubs.

GRUBS FOR NAMING (J. Fraser).—The grubs you send are dead, and not recognisable with certainty in their present condition. They are probably the caterpillars of the garden swift moth, which lays its eggs in the summer, and may be caught flitting at dusk over the beds in the garden. This is the best way to get rid of the pest. We do not think you have introduced it with plants.

POMPADOUR PRIMROSES AND MELONS (E. M. H.).—The Primrose should be taken out of the greenhouse before warm weather appears and be planted in rich soil in the coolest spot you can command. The shade of large trees would not be good for it, though shade from smaller subjects would be most helpful. Yes; give the plants liquid manure now, and in the open ground. Do not cut the roots in any way; cover them with rich soil or repot the plants deeply, and so cover the roots. You will find a frame facing south, with manure, the best for the Melons, or you could raise and cultivate them in the greenhouse. Raise the seedlings in a brisk heat of 70° or so, putting one seed in a 3-inch pot, but avoid watering if the soil is moist, as the seeds are liable to decay. The Melon requires a rather strong loam, made firm at planting-time, using a little well-decayed manure in the mixture. You had better raise the seedlings, and write us as to how and where you have decided to grow the plants, and we will give you a few hints for your further guidance.

PESTS FOR NAMING (T. H. Smith).—The creatures you send are very injurious to vegetation. They are, in fact, one of the most injurious pests which gardens, especially where the soil is sour, suffer from. Treatment with lime (using slaked lime now, but, better still, quicklime in the autumn) is one of the best measures to use against this spotted snake millipede, *Blanjulus guttulatus*, as it is called. It feeds on a great variety of different

things, and is especially fond of Lettuces, Potatoes and Peas just as they begin to germinate. Where only a few plants are to be protected, trapping with pieces of buried Potato is possible. Where many, the lime treatment (half a bushel to the square rod, about five and a-half bushels to your garden), constant cultivation and any treatment that will help to sweeten the soil are the methods to pursue. Some good may result by treating the soil with Vaporite, Apterite or some other soil fumigant.

NAMES OF PLANTS.—C. H. B.—1, *Lonicera fragrantissima*; 2, *Spiraea japonica*; 3, *Begonia manicata* var.; 4, *Peperomia argyreia*; 5, *Scilla sibirica alba*; 6, *Chionodoxa Luciliae*; 7, *Scilla sibirica*.—T. P.—1, Possibly *Sternbergia lutea*; 2, *Hippeastrum* variety; 3, *Vallota purpurea*. The bulbs are infested with mite. When badly attacked the bulbs should be burnt. A good remedy is to wash the bulbs with a solution of soft soap, sulphur, and soft water.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

THERE were two outstanding features at the meeting held on March 30—the remarkable exhibit of *Dendrobiums* and other Orchids from J. Gurney Fowler, Esq., treasurer of the society, which attracted large numbers throughout the day; and the excellent grouping of *Crocuses* and *Daffodils*, garden fashion, on the floor of the hall, from Messrs. Carter and Co., Raynes Park, S.W. Each in its way was new—probably unique—demonstrating high-class and useful gardening respectively. At 2 p.m. the *Crocuses* had expanded their cups to the increased warmth and made a brave show. For the rest, there were alpinas and *Carnations* in plenty; and *Roses* from Mr. Prince of Oxford in great numbers—it was, however, a very comprehensive and beautiful exhibit, and the visitors revelled in the beauty of the flowers. *Darwin Tulips* in fibre from Messrs. Bath were also good. Messrs. Barr had the *Daffodil* board to themselves. Four novelties received awards.

FRUIT AND VEGETABLE COMMITTEE.

Present: A. H. Pearson, Esq. (chairman), and Messrs. J. Cheal, W. Bates, C. O. Walter, G. Kelf, A. W. Metcalfe, A. R. Allan, H. Markham, A. E. Humphreys, J. Davis, J. G. Weston, G. Reynolds, J. Jaques, A. Bullock, E. A. Bunyard, P. C. M. Veitch, Thomas Coomber, George Wythes, Owen Thomas, James Hudson and W. Poupert. The only exhibit of vegetables came from Mrs. E. H. Denison, Little Gaddesden, Berkhamsted (gardener, Mr. A. Gentle), and consisted of well-kept varieties of Potatoes, Leeks, Parsnips, Carrots, Turnips, Onions and other serviceable kinds. Of Potatoes alone some dozen or so varieties were staged in excellent condition. There were no exhibits of fruit staged.

ORCHID COMMITTEE.

Present: J. Gurney Fowler, Esq. (chairman), Sir Jeremiah Colman, Sir Harry J. Veitch, and Messrs. J. O'Brien, R. Brooman White, W. Bolton, Gurney Wilson, C. J. Lucas, S. W. Flory, Arthur Dye, J. E. Shill, W. H. Hatcher, J. Cypher, J. Charlesworth, Walter Cobb, T. Armstrong, F. M. Ogilvie, Pantia Ralli, R. G. Thwaites, F. Sander, R. A. Rolfe, J. Wilson Potter and F. J. Hanbury. J. Gurney Fowler, Esq., Pembury, Kent, received a gold medal for a collection of Orchids, which covered the western end of the hall. They were chiefly *Dendrobiums*, and of these, arranged against the wall as they might adorn the walls of a corridor, some 350 well-flowered examples were placed. In this way every plant—we might almost add every flower—was seen to advantage. It was, in all probability, the most comprehensive exhibit of this genus ever seen at a London show. A few kinds, as *D. nobile virginale*, were in plenty, others being represented by smaller numbers. That named was very pure and good. Others of note were *brymnerianum*, rich golden, with much-forked fringe; *chessingtonensis*, golden, dark centre; *imbriata oculata*, also golden, and fringed; *Armstrongia*, white, deeply coloured lip; *armstrongianum*, pale pink; *amenum*, signatum and a great variety of noble hybrids. A few *Odontoglossums*, *Cymbidiums* and *Cypripediums* were also shown.

Messrs. J. Cypher and Sons, Cheltenham, had good plants of *Epidendrum xanthinum*, E. x. Boundii, *Cymbidium Butterfly*, *Dendrobium Thwaitesii* Veitch's variety, and the white and pink flowered *Sarcophilus Fitzgeraldii*.

Sir Jeremiah Colman, Reigate, sent flowers of hybrid *Dendrobiums* and *Sophras* among others.

Mr. F. Menteith Ogilvie, Oxford, had about thirty well-flowered examples of *Dendrobium Thwaitesii* Veitch's variety, the rich golden, crimson-eyed flowers being very effective.

Messrs. Stuart Low and Co., Enfield, showed *Cattleyas*, *Laelias*, *Brasso-Cattleyas*, *Oncidium concolor*, *Miltonias* and *Dendrobium crassinode alba*. *Cattleya Schröderae alba* was very fine.

Messrs. J. and A. McBean, Cooksbridge, had a nice lot of *Cymbidiums*, *Odontoglossums*, *Masdevallias* and *Odontiodas*.

Mr. Harry Dixon, Wandsworth Common, displayed *Cypripediums*, *Cymbidiums* and *Odontoglossums* in variety.

Messrs. Charlesworth and Co., Hayward's Heath, had a glorious lot of *Odontoglossums*, among them many well-flowered examples of the pure white *O. crispum* *Xanthos*. O. Jasper, a particularly well-blotched

variety; two forms of *Odontioda Brewii*, very intensely coloured crimson; and the curious *O. Langowoyi*, dark sepals and white lip, were also in this group.

Messrs. Sander and Sons, St. Albans, had fine flowering examples of *Dendrobium wardianum giganteum*, *D. harveyanum* (golden flowers, heavily fringed), together with *Cymbidiums*, *Odontiodas*, *Miltonias*, *Odontoglossums* and *Cypripediums*. *Coccyne lawrenceana* was very distinct.

FLORAL COMMITTEE.

Present: H. B. May, Esq. (chairman), and Messrs. E. A. Bowles, F. W. Harvey, W. J. Bean, J. W. Moorman, C. Blick, C. R. Fielder, J. F. McLeod, T. Stevenson, W. Howe, J. Jennings, W. Bain, J. Dickson, C. Dixon, C. E. Shea, C. E. Pearson, W. P. Thomson, E. H. Jenkins, G. Paul and R. Hooper Pearson.

Messrs. Carter and Co., Raynes Park, S.W., arranged a floor group of bedding Crocuses and Daffodils, occupying a double table length. The effect was very fine, in that it showed the better varieties of Crocuses as they should be seen massed in the garden. Some leading sorts were Royal Parks (white), Dorothea (pale violet) Purple Striped, White Striped and Triumph. In addition to the Crocuses were three circular groupings of Daffodils—a great central one of King Alfred, the two extremes of Sir Francis Drake. In all probability nothing finer of the former has ever been seen at this season, the rich golden colour and bold proportions of this unique variety appealing to all. Sir Francis Drake is paler in colour, though pleasing and artistic to a degree. It is also a handsome flower, and possesses a fine constitution.

Messrs. William Cutbush and Sons, Highgate, N., staged a very fine table of greenhouse flowering plants and shrubs, in which *Daphne indica*, *Azaleas* in variety, *Prunus*, *Cerasus*, *Wistaria sinensis*, *Azalea mollis* and other plants were well shown. In an alpine section were *Saxifraga Faldonside*, *S. burseriana*, *Iris reticulata*, *I. orchoides*, *I. warleyensis*, double blue *Hepaticas*, *Daphnes* and many others. Carnations, too, from this firm were very good, such as Mary Allwood, Carola, Salmon Winsor, Sunstar (yellow), Lady Ingestre (very fine pink), Mrs. L. Mackinnon (rich scarlet), Countess Fitzwilliam (rich crimson, new) and King George (rich scarlet, of Malmaison proportions) being among the best.

Messrs. Carter Page and Co., London Wall, E.C., exhibited *Violas* in pans, Yellow Beauty, Mrs. W. H. Woodgate, Marchioness (white), Snowflake and Stanley Saul (blue) being some good varieties.

Messrs. H. B. May and Sons, Edmonton, exhibited a floor group of greenhouse plants, in which we noted groups of *Azalea indica* in variety, *Genista racemosa*, *Boronia megastigma*, *Cinerarias* of an excellent strain, a fine lot of the dwarf-growing and useful *Calla alocasifolia*, together with Ferns, Palms and other plants. Two flowering groups of *Clematises* were also on view, such good varieties as Nellie Moser, Miss Bateman (white) and Fair Rosamund (blush) being among those shown. There were also some excellent *Amaryllids* staged.

Messrs. Barr and Sons, Covent Garden, had some charming bulbous flowers in a nice group. Of these, the gold and bronze *Tulipa chrysantha* appealed at once as much by its dwarfness as its grace and distinct colouring. Other good things were *Tulipa saxatilis*, *Narcissus juncifolius*, *N. triandrus*, *N. calathinus*, *N. King of Spain*, *N. Queen of Spain*, *Tulipa clusiana*, *Ranunculus montanus*, *Epigaea repens*, *Chionodoxas* and *Narcissus triandrus albus*. In addition, there were many charming *Saxifrages*, notably *Elizabethae* and *Haagei* (light and deep yellow respectively), *Erythroniums*, *Iris tingitana* and *Anemone blanda*.

Mr. F. Du Cane Godman, Horsham, showed half-a-dozen pans of *Tecophylaea cyanocrocus*, the whole beautifully flowered.

Messrs. Wills and Segar, South Kensington, had a lovely lot of greenhouse flowering plants, among which the spring-flowering *Heaths*, arranged in delightful groups, were most effective. Of these, the finer display was made by *Erica willmoreana*, whose rosy tubular flowers, in 18-inch long spikes, were highly attractive. Other good ones were *E. nivalis* and *E. Cavendishii* (yellow). In addition, the blue *Hydrangeas* were very fine, as were also big groups of white *Cyclamen*, *Boronia megastigma* and *Giant Mignonette*. Everything was most artistically arranged.

Miss C. Mangles, Seale, Farnham, showed half-a-dozen trusses of *Rhododendron eximium*, a very charming kind with short, campanulate flowers of rosy hue, which were most effective.

Messrs. Whitelegg and Page, Chislehurst, Kent, displayed alpine on rockwork with shrubs, *Daphne Cneorum* in profusion among the latter. Of alpine there were many *Saxifrages*, of which *Pauline*, *Elizabethae*, *apiculata* and *Faldonside* (all yellow sorts) were freely shown. *S. oppositifolia alba* was in good bloom.

Messrs. G. and A. Clark, Limited, Dover, showed a variety of *Polyanthuses* in many shades of colour, also a number of *Saxifrages* and other plants.

Messrs. Stuart Low and Co., Enfield, arranged a table of miscellaneous greenhouse plants and Carnations, the former including *Boronia*, *Crowea angustifolia*, *Erica melanthera*, *E. King Edward*, *Grevillea alpina* and other plants. The Carnations were in many varieties and in excellent condition. Mrs. C. F. Raphael (reddish scarlet), Marmion (scarlet and white), Geoffrey Henslow (a modified Marmion more brilliantly illuminated), British Triumph (crimson), Gorgeous (the finest cerise), Philadelphia (pink) and Snowstorm (white) were the best in a very good lot.

Mr. G. Reuthe, Keston, Kent, showed a great variety of alpine, of which the *Saxifrages* were the chief. Of these, *Saxifraga Kyrillii*, *S. Pauline*, *S. pungens*, *S. Faldonside*, *S. Haagei* and *S. Godseffii* are all yellow-flowered.

S. Grisebachii, *S. apiculata alba*, *S. marginata* (white) and *S. coriophylla* (white) were other notable sorts in the group. Lenten Roses were among other things.

Messrs. Allwood Brothers, Hayward's Heath, showed an excellent group of Carnations, of which Fairmount, Mary Allwood, Mrs. C. F. Raphael, Champion, Gorgeous, Terrific and Bishton Wonder were among the best.

Mr. L. R. Russell, Richmond, had a table of *Azaleas*, *Heaths*, *Wistaria* and other early forced shrubs.

Mr. Clarence Elliott, Stevenage, had a delightful rockery group, planting it with the choicest alpine. *Soldanella pusilla alba*, *Saxifraga Obstritii*, *Androsace Lageri*, *Saxifraga illicina*, *S. marginata*, *S. oppositifolia latina* (rosy), *S. scardica obtusa*, *S. Sundermannii*, *Draba imbricata* (yellow), *Anemone vernalis* and *Saxifraga Paulinae* (yellow) being among the more beautiful.

Mr. George Prince, Oxford, had a lovely lot of Roses. Rayon d'Or, Mme. Edouard Herriot, Countess of Gosford, Richmond, Josephine Nicholson (pink), Molly S. Crawford (white), Irish Elegance, Harrisoni, Juliet, Lady Hillingdon, Austrian Yellow and Lady Plymouth (yellow) were a few of the gems with which the group teemed.

The Misses Hopkins, Shepperton-on-Thames, had a select lot of early spring flowers, of which *Narcissus capax flore pleno*, *Shortia galacifolia*, *Hepaticas*, *Primula frondosa*, hardy *Heaths* and double *Primroses* were noted.

Mr. G. W. Miller, Wisbech, again showed boxes of *Daisies*, *Primroses*, *Pansies* and other early hardy flowers.

Mr. James Box, Lindfield, Sussex, showed *Primula Julig*, *Erythronium Hartwegii*, *E. Hendersonii*, *Stylophorum diphylum*, *Shortia galacifolia*, *Primula marginata*, *Trillium rivale*, *Iris orchoides*, *Erythronium nuttallianum* (yellow) and double blue *Hepaticas*, all in excellent condition.

Messrs. W. Wells, Merstham, showed Carnations very finely. Pink Sensation was grand, both in size and colour. Other good ones were Mrs. G. Lloyd Wigg (white), Aviator and Champion (scarlet), Yellow Stone and White Wonder.

Messrs. Piper, Bayswater, set up a remarkable exhibit of forced shrubs and flowering trees, many, as *Crataegus*, *Pyrus* and others, in fan-trained specimens. *Azaleas*, *Wistaria*, *Cytisus andreanus prostrata* and *Rhododendrons* were among those noted.

Lady Paget, Warren House, Kingston Hill, showed a group of *Star Cinerarias* in a great variety of colours. The plants were admirably flowered and nicely arranged.

Mr. Maurice Prichard, Christchurch, had a delightful lot of pot-grown *Saxifrages*, of which *apiculata*, *marginata*, *Petrashii*, *Paulinae* and *Kotschyi* were the choicest. *S. rocheliana lutea* was among rare sorts. The *Shortia* was very fine.

Messrs. R. H. Bath, Limited, Wisbech, had a glorious lot of Darwin *Tulips* in fibre, all the kinds being shown in perfection. Pride of Haarlem (cherry), Sierrard van Flora (rosy), William Copland (heliotrope), Philippe de Comminet (very dark), Angelica (also dark), Maiden's Blush, Bartigon (scarlet) and Isis (bright scarlet) were among the best. The *Chionodoxas* were very beautiful.

Mr. H. Burnett, Guernsey, had, as usual, a very fine display of Carnations, of which Mrs. W. B. Clode (very strongly scented), Salmon Enchantress, Enchantress Supreme, Marmion (scarlet and white, fragrant), Mrs. C. F. Raphael, Mikado, Mary Allwood, R. F. Felton, Champion and White Wonder were very fine.

Mrs. E. H. Denison, Little Gaddesden, Berkhamsted, showed some charming vases of *Acacia cultriformis* and *Rose Fortune's Yellow*. The former were very daintily arranged, and the plant is pleasing withal.

Messrs. Young and Co., Cheltenham, showed Carnations, Triumph, Philadelphia, Mikado, Britannia, May Day, Mary Allwood, Rose Enchantress and Duchess of Devonshire being the more prominent.

Robert Sydenham, Limited, Birmingham, had a group of *Tulips*, *Freessias*, *Lily of the Valley*, *Spiraeas* and *Daffodils* growing in bowls.

WARGRAVE GARDENERS' ASSOCIATION.

On March 24 a very interesting and useful paper on the "Early Flowering Bulbous Iris" was given by Mr. P. Wiseman of Messrs. Waterer, Sons and Crisp's Hardy Plant Nurseries. He referred more particularly to the Juno and Cushion varieties, giving directions for planting, the kind of soil best suited to their requirements, and the best means of obtaining good flowers. A good discussion followed, and many questions were answered by Mr. Wiseman, who received the best thanks of the members for his paper. Messrs. Waterer, Sons and Crisp exhibited a splendid collection of May-flowering *Tulips* in pots, and were heartily thanked for so doing; while Mr. W. Pope was awarded a cultural certificate for finely flowered specimens of *Dendrobium wardianum*. Mr. W. Bazeley showed living specimens of the Black Currant mite under the microscope.

READING GARDENERS' ASSOCIATION.

At the fortnightly meeting of this association, held at the University College on Monday evening, the 29th ult., Mr. H. Goodger, chairman of the committee, was the speaker, and his subject, "A Few Useful Vegetables." Mr. Goodger is one of the most successful growers in the district, and having regard to the importance of the vegetable crop at this time of war, his remarks were followed with great attention. The best methods to produce the finest Potatoes, Peas, Beans, Leeks, Onions, Carrots, Parsnips, Beet, Celery, &c., both for the home as well as the exhibition table, were given in the most able manner, and a profitable discussion followed the lecture.

The points competition resulted as follows: Mr. F. Townsend, 12 (full points) for *Primula malacoides*; Mr.

E. Blackwell, 12 (full points) for *Violet Marie Louise*; Mr. H. Goodger, 9 for Broccoli Sutton's Safeguard Protecting. Mr. G. E. Hawes exhibited two dishes of fine Ailsa Craig Onion.

Razors Wanted for Our Soldiers.—Mr. W. H.

Ellis, Master Cutler, Cutlers' Hall, Sheffield, has been asked by the War Office to collect razors from private persons who have no further use for them, so that they may be made serviceable and sent to our soldiers on active service. Although 25,000 have already been collected in this way, there is need for many more, as it is impossible to obtain sufficient new ones. Those of our readers who have razors for which they have no further use should send them direct to Mr. Ellis at the address given.

Royal Caledonian Horticultural Society.—

This society has just issued the schedule of its spring and autumn shows, to be held respectively on April 28 and 29, and September 8 and 9. The competitions provide the usual features which have made the society's shows of such importance, and should lead to splendid exhibitions of flowers, fruit and vegetables. At the autumn show the probable centre of interest will be the competition for the Thomson Challenge Trophy for Grapes, value fifty guineas, presented by Messrs. William Thomson and Sons, Tweed Vineyards, Clovenfords, and to be won three times before becoming the property of the winner. The society has also issued a list of the books belonging to it, which members may consult on application to the secretary.

The Perpetual-Flowering Carnation Society.—

The schedule relating to the Perpetual-flowering Carnation Society's show, to be held at Leeds on April 29 and 30, is to hand, and we observe that the exhibition is to be held in conjunction with the North of England Horticultural Society. Special classes have been arranged for gardeners and amateurs residing north of the Trent, and several of the North of England Horticultural Society's challenge cups are being offered, in addition to the formidable number controlled by the Perpetual-flowering Carnation Society. Schedules may be obtained from the secretary, Mr. T. A. Weston, Orpington, Kent.

Gardeners' Wages in Edinburgh.—

At a recent meeting of nurserymen in Edinburgh it was arranged to raise the charges for gardeners sent out to work by the day, and also to advance the wages to the men employed. The advance is at the rate of 1d. per hour, and at a subsequent meeting of gardeners satisfaction was expressed at this advance. An effort is being made to induce smaller employers who have not fallen into line to concede the rise also.

OBITUARY.

THOMAS HUGHES.

With great regret Messrs. Young and Co. notify us of the death of Mr. Thomas Hughes of Cheltenham, their much respected foreman. Mr. Hughes was taken suddenly ill on Wednesday, March 24, while at his work at Messrs. Young's Carnation Nurseries at Hatherley, Cheltenham. Deceased, who was well known by exhibitors, had been in Messrs. Young's employ for many years, and was much esteemed by his employers and respected by those with whom his daily duties brought him in contact.

THE GARDEN.

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APRIL 17, 1915.

NOTES OF THE WEEK.

Horticulture at the Royal Agricultural Society's Show.—We are pleased to see that there is to be an extensive horticultural section in connection with the Royal Agricultural Society's Show to be held in Nottingham from Tuesday, June 29, to Friday, July 2. The schedule is now ready, and copies can be obtained from the secretary, Mr. Thomas McRow, 16, Bedford Square, London, W.C.

An Attractive Ranunculus.—Although the lesser Celandine (*Ranunculus Ficaria*) is quite common in most places, the same cannot be said of the variety major, sometimes known as *Ficaria vandykeana*, for it well deserves a place in the wild garden. For some weeks it has been pushing forth its large, golden yellow flowers, and will continue for some time to come. When mixed with *Chionodoxa*, as we saw it the other day, with the sun shining on it and the *Ranunculus* flowers wide open, they were very effective.

The Double-Flowered Blackthorn.—Now that the Blackthorn, or Sloe, is flowering freely in our hedgerows, it may be of interest to draw attention to the double-flowered variety, known by the botanical name of *Prunus spinosa flore pleno*. This makes a graceful, low-spreading tree that is pleasing to behold at all times, but just now, when the black-barked branches are wreathed in faint, rosette-like flowers of the purest white, it will pass muster with the choicest of our hardy flowering shrubs or trees. Planted in the woodland, where it can have a background of dark-leaved evergreens, this double-flowered Blackthorn is particularly effective.

Flower Shows and Horticulture in America.—Under the heading of "Societies," on page 192, we publish a report, by Mr. J. Harrison Dick, editor of the *Florist's Exchange*, of a large floral exhibition held in New York from March 17 to March 23. We think this report is of more than ordinary interest, inasmuch as it reveals in no small degree the influence that British gardeners are exercising on horticulture in the United States. We doubt if European horticulturists realise fully the wonderful strides that are being made by our American cousins. Until comparatively recently,

horticulture, as we know it at home, was but little understood by them; but signs are not wanting that they are making strenuous efforts to understand the art of private gardening and European methods of exhibiting.

The Pasque-Flower.—Of the genus *Anemone* few species are more highly prized by lovers of hardy plants than the Pasque-flower (*A. Pulsatilla*). Although a native of Britain, it is not often found in a wild state, but in our gardens it is one of the most pleasing flowers of the spring. The Pasque-flower is never seen to better advantage than when planted in colonies, preferably in the semi-

prove normal, the early flowering section will be at its best towards the end of the present month, and the other sections during the first fortnight in May. In order to facilitate the inspection of the trial, an interleaved index has been prepared in pamphlet form. Fellows of the society visiting Wisley may obtain copies of this index free of charge on application at the office. The gardens at Wisley are situated about $3\frac{1}{2}$ miles from Byfleet, $3\frac{1}{2}$ miles from Horsley, and $5\frac{1}{2}$ miles from Weybridge, all stations on the London and South-Western Railway, with frequent trains from Waterloo and Clapham Junction.

New Zealand Spinach.

Where one has difficulty in keeping up a constant supply of ordinary Summer Spinach in hot weather, the New Zealand kind will supply that want. In Northern gardens it will be advisable to sow the seed indoors, prick out the seedlings into small pots when ready, and harden off for planting outdoors in May. In Southern parts it can be sown outdoors about the second week of that month. If given ample room between the plants, it is really astonishing what a picking one can get from a small plantation. Seed should be ordered now.

Open-air Treatment for

Wounds.—Those who appreciate open-air life—and, we presume, all who are interested in gardening do—will be interested in a letter by Dr. H. S. Souttar that appeared in last week's issue of *Country Life*. Dr. Souttar has



A COLONY OF THE PASQUE FLOWER (*ANEMONE PULSATILLA*). ALTHOUGH A NATIVE OF BRITAIN IT IS NOT OFTEN FOUND IN A WILD STATE

wild parts of the garden, where its lavender violet flowers, each with its silken ruff, can thrust themselves up between the russet fronds of hardy Ferns. There are several varieties, one with rose-coloured flowers and another with blossoms of lilac hue, while a more rare plant has petals of almost chocolate colour. This *Anemone* appreciates well-drained soil of a calcareous nature, and for that reason is often grown in the rock garden, where the natural soil in other parts of the grounds is too heavy.

Trial of Tulips at Wisley.—The trial of Tulips which is being continued this year in the Royal Horticultural Society's Gardens at Wisley includes about 5,000 stocks. Should weather conditions

had considerable experience of wounds in the Belgian Field Hospital, close to the Front, where the wounded men came direct from the trenches, and where only the very worst cases were treated. It was found that septic wounds became much worse when treated with the ordinary dressings, but when the patients were put out in the courtyard, as, it was thought, to die, the wounds quickly became clean and inoffensive, and the patients made rapid recovery. Dr. Souttar states that the bacteria which cause sepsis cannot live when exposed to the air, hence the good results that were obtained. His letter is of national importance at the present time; therefore we make no apology for referring to it.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

The Cherokee Rose in Scotland.—*Rosa lævigata* has been flowering well this spring in the conservatory at St. Mary's Isle, Kirkcudbright, where it is grown up the roof. It is also successfully cultivated there against a warm wall in the open, where it blooms and usually stands the winters well, as St. Mary's Isle has a mild climate for the district. The Cherokee Rose is not too well known, and would be appreciated by many who take pleasure in single blooms. The handsome flowers are of a good white, are large, of good substance, and look exquisite with the contrast between the yellow stamens and the white petals. It lasts longer as a cut flower than do many of its sister Roses with single blooms.—A.

The Genus Grevillea.—There is an evident omission from Mr. Morbey's communication on

Forsythia intermedia spectabilis.—This charming Forsythia, which was given an award of merit at the meeting of the Royal Horticultural Society on March 30, and is illustrated on page 176 of THE GARDEN, deserves to be better known. It is now some years since it was distributed, and though stocked in many nurseries that make a speciality of hardy shrubs, it is not generally met with. *F. intermedia* itself is a hybrid between the two old species, namely, *F. suspensa* and *F. viridissima*. In general appearance it is about midway between the two, combining the exceeding floriferousness of *F. suspensa* with the bushy habit of *F. viridissima*. Since *F. intermedia* was distributed, some three or four forms thereof have been put into commerce. Of them *spectabilis* is remarkable for the rich yellow colour of its blossoms and the profusion in which they are borne. In any selection of flowering shrubs, however limited, this Forsythia is, I consider, fully entitled to a place. Like the other members of the genus, it is not at all difficult of increase,

plants are such delightful and uncommon shrubs—they are yet so rare in gardens—that all the plants it is possible to secure should be grown. The *Stachyurus* belong to the Natural Order Ternstroemiaceæ, and are deciduous shrubs about 3 feet in height. The pale yellow flowers are borne in pendent, catkin-like inflorescences towards the ends of the shoots of the previous season's growth. The buds form in the axils of the leaves in autumn and during winter they may be noticed developing gradually. The flowers open during February and March, in advance of the leaves. In describing *S. chinensis* as distinct from *S. præcox*, botanists denote broader and crenately serrate leaves abruptly contracted into a long acumen, a difference in the colour of the young wood, a longer style and smaller fruits. The *Stachyurus* require a warm, sheltered position from the east, and light, well-drained soil, consisting of sandy loam and peat or leaf-mould.—H. O.

The Bardfield Oxlip.—I was very interested in the excellent article on this flower in your issue of March 27, page 152. I have several plants, collected in the Bardfield district a few years ago, flowering in a cool corner of my garden just now, and feel sure that other readers would grow it, could plants be easily obtained.—A. B. ESSEX.

Rock Gardening as Represented by Its Votaries.—I have read with immense interest the recent articles on the inmates of rock gardens for I had formed a fancy to make a rock garden with the sandstone found in parts of my garden that is to be, within my "hedge of sorts" (now planted). But oh! on reading the said discourse I am disillusioned, and do not want one at all. For from what I read it seems that a rock garden should be a sort of invalid home for feeble foreigners chiefly. No natives need apply for a place unless they are "miffy." Nothing but plants which need continual coddling, shading and sheltering, fussing and feeding with special food in the way of soil may be admitted. Any plants which thrive without special attention, or—worst crime of all—actually dare to spread and increase, must immediately be banished, or at best be "cribbed, cabined and confined" in tin tubes or starved in stone cylinders. Now, this is the very reverse of my ideal in a garden. I love to see my flowers look happy and healthy, as if they enjoy growing in my garden. I would as soon keep a puny, pining, homesick child in my house as these poor prisoners of the cruelly kind rock gardeners. They bring to my memory a certain clump of Parsley Fern I once captured on the slopes of Conistone Old Man and brought home in triumph to my mother, who cherished a choice collection of British Ferns. In spite of every care, the poor thing gradually became more and more sallow and sickly, and eventually wilted and withered away. Every time I looked at it I felt myself a murderess. No; I will not have a rock garden. My flowers shall freely grow and blow at their own sweet will, and any that do not thrive shall be sent to some more congenial climate.—ANNE AMATEUR.

Prospect of the Apple Crop.—Although last year was remarkable for the heavy crop of Apples and the quality of the fruit, the trees here have again a most promising appearance for a full show of blossom; indeed, I never saw them looking better. Where all are so good, it is difficult to specialise. Lane's Prince Albert, which cropped thinly last year, is very thickly studded with fruit-buds. Some six-year grafted trees of Norfolk Beauty and some five-year grafted tree



FLOWERING SHOOTS OF A NEW HARDY SHRUB, STACHYURUS CHINENSIS.

Grevillea on page 170. As it stands, he is made to state that there are fifty-seven varieties of Grevillea in Australia instead of 157 species. I substitute the latter denomination as the correct one in this connection. Grevillea, as well as Acacia and Eucalyptus, is a characteristic element in the vegetation of all parts of Australia, including one species, at least, very common in Tasmania. A few species occur in New Caledonia, but the genus does not extend to New Zealand. The number of species described in Bentham's "Flora Australiensis" of forty-five years ago is 156; but that has been increased by the discovery of additional new species. The species of Grevillea vary in stature from trailing, prostrate shrubs to trees 100 feet in height. Many of them have very brilliantly coloured flowers, and are conspicuous objects in the scenery when in flower.—W. BOTTING HEMSLEY.

as cuttings of the growing shoots taken in the summer, dibbled into pots of sandy soil, and placed in a frame which is kept close and shaded, will soon root.—H. P.

A New Chinese Shrub.—*Stachyurus chinensis* is a new species or variety of *Stachyurus* noted by several Chinese collectors and introduced by Mr. E. H. Wilson, who sent home seeds. These have germinated well, and the plants are growing and flowering freely. In a bed of seedlings the habit of growth varies, some of the plants being quite upright, while in others the shoots are spreading. A curious feature of one plant is that when the racemes are developing they are upright, but before the flowers open they assume the usual pendent habit. Whether the Chinese *Stachyurus* is sufficiently distinct from the Japanese *S. præcox* to be given specific rank we must leave the botanists to decide. Both

of James Grieve show much promise of fruit. Bramley's Seedling, although it carried enormous crops last year, again gives much promise. Trees of Mank's Codlin on their own roots are thickly budded with fruit-buds, and so are the trees of Cox's Orange Pippin.—E. M., *Swanmore, Hants.*

Magnolia stellata.—I was much interested in the note by "W. F." and the beautiful illustration of a plant in bloom on pages 150 and 151, issue March 27. The position for effect is ideal. I have grown Magnolias for many years on a large scale, carrying on the work of other cultivators, and some of the trees of *M. grandiflora* resembled Oaks, measuring more than 15 inches through the stem and being 25 feet and over in height. There were many young trees and others of medium size in good variety, and growing in naturally dry and very moist soils without apparent difference to the health of the trees. In my case *M. stellata* was marred by late frosts in exposed positions; but one large tree, several feet higher than that mentioned by "W. F.," growing on the north side of a very high wall—as a standard or bush and not trained to the wall—flowered late, and even when frosts came the lovely blossoms were rarely damaged by them.—G. G.

Two Good New Potatoes.—I was interested to read the note about the new Potato Prosperity by "H." in your issue for March 13, page 128, and can endorse all that he says about its excellent cropping and keeping qualities, and also its flavour. It may interest readers to hear of two other good new varieties that I tried last year with considerable success. These came from Mr. W. E. Sands, Hillsborough, County Down, Ireland, and were named, respectively, Mayflower and King George V. The first is a very early Potato and a heavy cropper, the tubers being pebbled, shaped, with white, beautifully netted skins. Planted at the same time as Midlothian Early, the roots were ready for digging ten days before that variety. King George V. is a second-early or midseason Potato, the large, oval tubers coming of good shape and with shallow eyes. The flavour and cooking qualities were excellent, and I feel sure both these Potatoes have come to stay.—A. B. ESSEX.

What is Wanted in Daffodils.—A very desirable thing for Daffodil raisers to work for seems to be the production of giant yellow incomparabilis. Of Giant Leedsis we now have an excellent and ever-growing selection—I mean things of the Lord Kitchener type. But flowers of a class such as, for instance, a magnified Homespun, though badly wanted, do not appear to be forthcoming. A batch of seedlings from a cross made here between King Alfred (seed) and Homespun (pollen) is now in bud for the first time, and should yield something useful; but very likely, after all, the particular thing that I am craving for will turn up as one of the results of a totally different cross—such are the vagaries of seedling raising. If there is in existence a flower of the calibre and proportions of Great Warley, but with more refinement and a greater length of stem, and self yellow, I have not yet seen it; but possibly someone else may have done so—Mr. Jacob, for instance, who is a perfect mine of information on the Daffodil. In any case, it seems to me to be a thing that will fill a gap, and be welcomed by all keen Daffodillers.—ORNATUS.

Colour Charts: What is Wanted.—The Rev. Joseph Jacob, in his article on the above in *THE GARDEN* of March 6, page 116, brings to notice a matter of much importance. There

are several good reasons why the shades of colour in flowers should be standardised, and not the least weighty of these is the benefit that would accrue to prospective buyers of plants and seeds when scanning the lists of nurserymen and seedsmen. As things are at present, if you stick religiously to one list, you will meet with many surprises (if you purchase) and not a few disappointments; and if you consult and compare several lists, the result will be "confusion worse confounded." Take the following examples of descriptions from leading firms, chosen at random. Sweet Pea Charles Foster: (1) "Combination of mauve and pink"; (2) "Metallic opal pink"; (3) "Hydrangea pink, suffused pale mauve." Or Rose Marquise de Sinety: (1) "Roman ochre, shaded fiery red"; (2) "Golden yellow, shaded bronze red." Keeness of perception in distinguishing between shades of colour is a natural gift, and perhaps not a very common one; therefore there are, I think, thousands of flower-lovers who would hail with gladness a well-arranged colour chart, produced in pocket-size book form, and to be sold at a popular price. Of course, when hundreds of shades have to be described, it puts a fairly heavy tax on one's vocabulary, but such descriptions as "Hermosa pink," "Isabel yellow" and "Nelson pink" should be avoided.—CHARLES COMFORT.

The Celery Fly.—As a reader of *THE GARDEN* I am writing to tell you of a method I adopted with the Celery fly last year and in 1913. Like many others, we were troubled with it season after season, and our plants were made wrecks in spite of soot dustings and crushing the maggot in the leaf, a slow and tedious affair when badly attacked. In 1913, after the fly had begun its work and the plants were looking rather bad, the thought occurred to me, while passing down the rows for maggot, to catch the fly, and this is done by drawing the open hand quite close to the fly when settled on the foliage, and with a quick sweeping movement and closing it again most of the flies are caught after a little practice. In the first season after adopting this plan, for the first few days we caught from sixty to eighty flies, for several more days fifty to sixty flies, and by the end of a fortnight or so we seldom saw more than half-a-dozen on any day. After this we could detect a great difference in the newer foliage, which was comparatively free from maggot. As the pest generally commences its attacks early in August, and as we did not put the new plan into use till September, I quite believe it would have kept the plants from the bad state into which they had become if we had started when the pest did; but the idea had not then occurred to me. Last year I was on the look-out early for the flies, but there were very few to be seen compared with 1913, and I caught what I could and crushed what maggots there were. I may say that I never had cleaner Celery when it was earthed up. Perhaps the small number of flies seen in 1914 compared with the previous year was due to killing the flies and maggots. I generally go over the rows of plants each day, spending a few minutes crushing the maggots, and while one is doing this it takes no more time to catch the flies. As there are several broods in a season, it is certain there will be no more from the flies that are caught. As no insecticide is of use, as in the case of sucking insects, I think it is better to get rid of the flies, as far as possible, in the way I have stated. Perhaps you may think this of some use.—E. COPE.

QUALITY IN VEGETABLES.

MY mind being rather filled at present with the following grievance, I am hoping you will let it be ventilated in *THE GARDEN*, so that perhaps something may come of it. There must be many who, as the advertisements put it, are only "two in family," and no matter how many servants are kept, if only one of the two in the dining-room eats vegetables, the problem is always how, in these days of enormous kinds, to have ones that either do not form a dish looking enough for a large family, or an equally absurdly small one of, say, four or five (gigantic) Brussels Sprouts, &c., for it is a sad fact that the smaller and more refined-looking vegetables are now only mentioned in small print, and seldom, if ever, sent out in the guinea or other "collections," which are in themselves so convenient and so amply sufficient for small households. One is, therefore, forced to eat Broad Beans the size of kidneys, Brussels Sprouts like large Walnuts, Salsify, one stick of which is enough for a helping, Cauliflowers that no woman could tackle alone, and so on (even the Parsley having become almost a shrub), all of which varieties have the recommendation (?) of "Exhibition," "Prize," "Giant," "Mammoth," "Leviathan," &c., attached to them.

Surely the perpetual shows and consequent competitions for medals, certificates, &c., are creating a class of vegetable which is becoming nothing less than a nuisance for private growers. No one *really* cares to eat these gigantic vegetables, which hold the water of our English cooking, look ungainly and coarse on a dish, take up a great deal of room on one's plate, and are never as sweet-tasting as the smaller kinds. I would rather go without puddings than vegetables, growing every unusual kind, and to my mind Broad Beans cannot be small enough. They should be first picked when no larger than Marrowfat Peas, and the supply for the dining-room should stop when they are the size of Filberts, otherwise they are tasteless and woolly. Brussels Sprouts, too, cannot be too small, only the "Gem" varieties being grown both of these and the Broad Beans; Carrots also, and so on, to ensure which I have always endeavoured, when ordering a collection, to get besides some of the daintier "breeds" of items I know will be sent as exhibition varieties, thus paying twice over, perforce.

If these must be grown—and till competition at shows for size ceases they will be—could not seedsmen try the experiment of sending out some collections of seeds of small varieties of vegetables of a high quality for people who want plenty of every sort, but ones that will furnish them, if they live alone, with small, dainty dishes, instead of the either mountainous heaps or equally absurd three or four Sprouts, &c., considered from motives of economy to be enough for the one person by the autocrat in the kitchen? A. LA T.

FORTHCOMING EVENTS.

April 20.—Lincolnshire Spring Show at Spilsby.

April 21.—Midland Daffodil Society's Show at Edgbaston Botanic Gardens, Birmingham (two days).

April 22.—Eastwood Continuation Schools Glasgow. Lecture by Mr. John Smellie on "Pansies and Chrysanthemums," at 8 p.m.

April 24.—Presteign Spring Show.

THE DIANTHUSES OR PINKS.

NOTWITHSTANDING the fact that considerable confusion exists in the nomenclature of the Dianthuscs, or Pinks, they form one of the most interesting and pleasing families of hardy plants that we know. Members of the genus have been grown in English gardens from very remote times, and the day is far distant when the fragrant florists' Pinks will fail to interest those who appreciate quiet beauty and old-world fragrance. In an article of this kind it is impossible to do more than briefly touch on a few of the most important; in the Carnation itself—a member of the Pink family—there is material sufficient to make a large book, and one has only to call to mind the lovely Malmaison Carnations, the border varieties

are now a great many hybrids in existence, some of which are very charming, and at Friar Park Sir Frank Crisp has raised quite a host, which have yet, I believe, to be named. The following are all good:

Dianthus arenarius.—This is commonly known as the Sand Pink. It makes a neat tuft of very narrow, grass-like foliage of bright green colour. The flowers are borne in June and July on slender stems 6 inches to 9 inches high, and are much fimbriated at the edges. On most plants they are white, but in some instances blush or pale lilac blossoms are produced.

D. cæsius.—This is the Cheddar Pink, and is one of the most beautiful of all our native flowers. The plant forms a dense, spreading tuft of slightly glaucous foliage, and produces its flowers on stems about six inches high. The blossoms are bright rose pink in colour, and usually open during the early part of June. It loves a crevice in the rocks and a little old mortar in the soil.

colour, and are borne on branching stems a foot high. There are a great many varieties, however, one of the best being Duchess of Fife. If raised from seed, considerable variation will be found in the plants.

D. superbus.—In appearance the foliage of this Pink reminds one of a miniature Sweet William. The flowers, which open from May to August, are variable in colour, generally, however, showing rose or pale pink tints. The petals are very long and deeply fimbriated. It is not difficult to grow, but should be treated as a biennial, new plants being raised from seed one year, to flower the next. It is really more curious than beautiful.

D. neglectus.—In some gardens this charming Pink is difficult to grow, but in others it seems to thrive without any special attention. Evidently it appreciates peat and good loam as a rooting medium, with copious supplies of water during hot weather. It has neat, grass-like foliage, and the flowers open during May and June on stems 4 inches to 6 inches high. These are bright carmine in colour, and when well grown the plant is a gem for the rock garden.

D. Spencer Bickham.—This is a very beautiful garden hybrid, raised, I believe, by crossing the Cheddar with the Maiden Pink. It is much like the first named in habit, but the rather large flowers are brilliant, glowing rose colour. Its blossoms very freely in June, and ought to be grown wherever Pinks are appreciated.

Although border Pinks scarcely come within the scope of this article, one cannot let the opportunity pass without mentioning a variety named Gloriosa. This was put into commerce three or four years ago, and is the best all-round garden Pink that I know. It has flowers as large and as fragrant as the well-known Mrs. Sinkins, but they are bright rose pink in colour, and do not split their calyces as do the blooms of that variety. Moreover, it commences to flower at the end of May and continues until well into July, a trait that I have not yet found in any other Pink. H.

GLADIOLI FOR SPRING PLANTING.

DURING the late summer and autumn months, from mid-July until well into October, there is usually a heavy demand for bold, brilliant-coloured flowers for cutting, and few plants will give such a wealth of material for so comparatively small an outlay of time and trouble as the large-flowered, modern Gladioli. Time was when these flowers found a home in but few gardens in the country, a fact that was largely due to the paucity of really good colours among them, and to an erroneous but widespread belief that they were tender plants and very difficult to grow really well. Hybridists, with their usual acumen, have during the last two decades given us a wonderful wealth of new colours, principally by crossing the different species or types, and, in addition, have imparted to the plants increased vigour and to the flowers greater size and graceful poise, so that the modern Gladioli are flowers that should be grown on a bountiful scale in all good gardens, and especially those where autumn flowers are appreciated.

Of the stately bearing of these Gladioli in bed or border it is not necessary to comment at length.



DIANTHUS PLUMARIUS, A FREE-FLOWERING AND FRAGRANT PINK.

and the newer, but none the less pleasing, Perpetual-flowering type to realise what vast ramifications exist. For that reason it is only proposed to deal here with a few of the best of the dwarf-growing kinds—those specially adapted for the rock garden or for forming edgings to beds or borders.

In a broad sense these dwarf Pinks are not difficult to grow. Some there are, it is true—such, for instance, as the Glacier Pink (*Dianthus glacialis*) and the Alpine Pink (*D. alpinus*)—that call for a considerable amount of cultural skill, but these are plants only for the connoisseur. There are plenty of good ones available that grow easily and flower freely. What they need is rather porous soil that is not over-rich, and in most cases a sunny position. Most of those named here are easily propagated by means of cuttings or pipings taken off during July and planted in very sandy soil in a shady place, or even a cold frame. Some of the species are also easily raised from seeds, sown preferably early in spring in a cold or slightly heated frame. There

D. deltoides.—Another native of Great Britain, and known as the Maiden Pink. It has very small, green, grass-like foliage, which forms a dense tuft, whence spring the lovely deep bright rose pink blossoms on slender stems about nine inches high. There are several varieties of it, notably albus, with white flowers, and superbus, with larger blossoms.

D. fragrans.—Although its specific name implies that this has fragrant flowers, I have never yet been able to detect sufficient scent to be worth mentioning. It is a useful and easily grown Pink, however, its much fimbriated white flowers being produced in abundance during June and July from good-sized tufts of narrow, green foliage.

D. plumarius.—This is the wild form of our fragrant garden Pinks, and is a splendid plant for the bolder parts of the rock garden. It is easily grown, and quickly makes a large tuft of glaucous foliage. The flowers, which open in June, are usually of a rather pale pink



A SEEDLING PINK WITH HEAVILY FRINGED PETALS.

Flower-spikes 3 feet or even more in height, clothed for at least a third of their length with large, fully opened and gloriously brilliant blossoms, the middle tier carrying a wealth of partly opened flowers, and higher up neatly folded buds in their pale green sheaths, need only to be once seen to be fully appreciated, and it is difficult to think of a position in either large bed or mixed border where they would be out of place. Grouped in colonies of nine or more, according to the size of the border, they are ideal for growing with herbaceous flowers, and can be planted in close proximity to some that flower early in the summer and so fill the hiatus that would otherwise occur. One of the prettiest combinations of Gladioli and herbaceous plants I have ever seen was a large bed sparsely planted with the white Phlox Mrs. E. H. Jenkins, and the scarlet *Gladiolus brenchleyensis* freely interspersed among them. Both flowered in August, and the combination of pure white and scarlet was particularly good.

Although these Gladioli are such excellent and useful plants for creating brilliant effects in the outdoor garden, I think they are even more useful for cutting, a point in their favour that was briefly referred to at the outset. The reason is this. The flowers on a spike, as already stated, do not all open at one time, the lower ones unfolding first, to be followed later, and in stages, by the buds on the upper portion of the stem. This development of blossoms goes on equally well when the spikes are cut and placed in water as if they are allowed to remain on the plant; consequently flower-spikes which are cut in their early stages of development will last in good condition in water for ten days or a fortnight, removal of the lower flowers as they fade and the replenishing of water every other day being all the attention that is necessary.

Now that the planting season is here, it may be useful to give a few hints on the cultivation of these flowers, which play as important a part in the autumn garden as the stately Darwin Tulips do in that of the spring. Fortunately, they are

not very difficult to manage, and providing good corms, as the bulb-like roots are technically called, are procured, they can be accommodated in almost any garden in the United Kingdom. There are, however, a few essential points that must be remembered. These plants must have an open position, *i.e.*, one not heavily shaded by trees or buildings; well-drained, moderately rich soil; and the corms must at planting-time be kept from actual contact with fresh or green manure. With a modicum of ingenuity these essentials can be provided in almost any garden. Providing

the soil has been deeply dug, and manured deep down with thoroughly rotted manure in fairly bounteous proportion, it should be in good condition for planting, an additional forking over of the top 10 inches and mixing well with it some steamed bone-meal—a good handful to each square yard—rendering it even more agreeable to the plants. The actual depth to plant will vary somewhat with the character of the soil. For instance, if it is heavy clay, 3 inches of covering soil will be sufficient; while in that of a very porous nature nearly twice that depth would be necessary, ranging it between these two according to the variation of the soil. At the risk of repetition, it is necessary to emphasise the fact that perfect drainage is essential, and when planting Gladioli in clay soil it is advisable to put an inch of coarse sand under the corms and surround them with the same material; while for the choicer varieties it would be quite worth while to fill in the hole with some good potting soil.

Varieties are now so numerous that it is almost invidious to name any. The majority of those offered by firms of repute can be relied upon to do well, and particulars of these and others large-flowered sorts can be obtained from any good catalogue of bulbs for spring planting. S. X.

SOME NOTES ON LACHENALIAS.

Their Lasting Qualities.—Now that my Lachenalias are almost over, I would like to draw attention to their wonderful lasting properties, both as pot plants and as cut flowers for rooms. Compared with Daffodils, Tulips and Hyacinths, they are like Marathon runners to sprinters. Potfuls last in perfection for quite two weeks, and sometimes longer if they are brought into the house before the top bells of the spike are fully expanded. Of how few other



ANOTHER SEEDLING PINK WITH PLAIN EDGES TO THE FLOWERS.

flowers can it be said that they last in water as well as, if not better than, they do when growing, yet this is literally true of *Lachenalias*. Every year they seem to give me a fresh surprise in the time during which they remain in good condition.

I hope, too, that I am getting a strain which will enable them to be used in average-sized vases, for up till now the great majority of varieties are only possible in low receptacles on account of the shortness of their stems. I have now, however, quite a dozen kinds which in pots look as if the flower-heads were walking on stilts, but which I have found to be the very thing for vases. These measure from 13 inches to 16 inches in length, and have from 9 inches to 11 inches of clear stem before the flower-spike begins (see illustration). They are as different as chalk is from cheese compared with *Cawston Gem*, *Nelsoni*, *Ruby*, *Brightness*, *Shiner*, *Ruth Lane* and *W. E. Gumbleton*. They are more of the type of *Rose Barton*, which is one of the very best of all deep yellows.

I was glad to see that in the list of Frank Lilley of Guernsey last autumn, and also in that of Messrs. Barr and Sons, some of the new varieties were catalogued. It would be interesting to know what sale they had. I fear not a very large one, for the merits of the family are not appreciated as they deserve to be, and yet I know a small band of the faithful do grow them. Mr. George Paul, for example, told me that he had a nice collection. Again, it was pleasant to see the edging of well-grown *Nelsonis* round the Marquis of Ripon's group at the Forced Bulb Show. One of my gardening aspirations is to be able to stage a good group of *Lachenalias* at Vincent Square.

The Routine of Cultivation is, like most other affairs, simple when once its main principles are mastered. When people begin to "pot" grouse, then lose no time in potting *Lachenalias*. They require a rich, light, porous compost with good drainage. Personally, I prefer to put one bulb in a 3-inch pot, and then, when they flower, to turn

the plants out and mass them together in a larger receptacle. At this moment I have two grand bowls made up in this manner. The outstanding features of *Lachenalias* are their singularity in form compared with the usual spring flowers, and their extraordinary staying powers. Their popular English name is *Cape Cowslips*, but a more descriptive one for those who are unacquainted with them would be yellow Wood Hyacinths of the Spanish or campanulata type.

After the Bulbs are Planted they must be placed in cold frames, being careful to protect them from frost and to give as much air as possible, but on no account to subject them to a cold

draught. Bring them into a cool greenhouse about early December, unless there have been hard frosts previously; keep them as cool as possible, and again give air on all suitable days. They will flower about mid-February to mid-March.

After Flowering, and for a short time before, mild stimulants must be given. Soot water and cow-manure water are excellent. The plants must be well looked after till the yellowing leaves show us that the bulbs want to go to sleep and prepare for their summer's baking in the sun. Once the leaves have faded (which time will

of foliage and flower, and makes an attractive object.

I feel I am to some extent a scribe writing in the wilderness in penning my meed of praise for this useful plant. Comparatively few, I find, know it by sight, and fewer still its good qualities for decorating our rooms either in a growing or a cut state. I see it is claimed for the *Gladiolus* in the *Gladiolus Annual* for 1914-15 that it will outlast any other flower in water. I wonder if the writer has ever tested the length of time that a *Lachenalia* will remain good and retain its colour. A *Gladiolus*

may last longer, but when it comes to lasting and retaining its true colouring, I must put in a claim for the *Lachenalia*. J. JACOB.

NARCISSUS NOMENCLATURE.

ON page 113, issue March 6th, the Rev. J. Jacob desires alternative designations for the various classes of *Narcissus*. I wonder why. One name for each class ought surely to be enough, if it has been well chosen. We must suppose, therefore, that Mr. Jacob does not consider those names to have been well chosen which have so long been in use. Neither do I. The attempt to classify garden *Narcissi*, or garden anything, on strictly scientific principles must fail, because the differences which interest the gardener are not the specific differences which alone interest the botanist. In the eye of the botanist there is no essential difference between a *Leeds Daffodil*, a *Barr Daffodil* and an incomparabilis. They are different complexioned children of the same family. To the gardener the complexion is everything; to the botanist it is of no interest whatever. But the *Daffodil* people would have a scientific classification for their flower, and in the *Baker classification* they probably got as scientific an arrangement as the material permitted, though in science a miss is as good as a mile.

One thing at least in the present classification is, after the manner of science, its Latin terminology, and it is for this quasi-scientific jargon, I take it, that Mr. Jacob desires some more intelligible alternative—small blame to him! No doubt what he wants is a serviceable English terminology which we can all use without the risk of scandalising Vincent Square by our pronunciation, reserving the more learned Latin (*Magni-Coronati*, &c.) for *Daffodil* conferences, where a certain show of erudition is perhaps only decent. As a matter of fact, the botanist has, in the *Narcissus*, a hard row to hoe, and I am afraid we, mere gardeners, must leave him to work out his own salvation, wishing him joy of the task. Assuming, then, that an English substitute for the Latin



A VASE OF LACHENALIAS WITH EXTRA LONG STEMS.

probably be early May), keep the soil and pots dust dry, and give them all the sun and air that they can get. Do not turn the bulbs out until a day or two before they are to be replanted. As *Lachenalias* are rapid increasers, the ideal plan is to have two lots of bulbs—one to be used for the indoor decoration of the house, and the other to be grown for stock for another season's planting.

If the one-bulb-one-pot system is inconvenient, six to eight bulbs may be put in a 5-inch pot, or five or six in a 4-inch; or wire baskets may be lined with moss, in which the bulbs may be placed pointing outwards and the interiors filled with soil. A well-grown basket of *Lachenalias* is a mass

terminology is desirable, what are the principles which should determine the selection of names for the recognised classes? In my opinion they are three. The names chosen should be (1) accurate, (2) brief, (3) descriptive. If you can find a name which is all three (not always an easy thing) you have the ideal name. "Trumpet Daffodil" is such an ideal name, whereas "Ajax" is absolutely meaningless. "Poetic Daffodil" is not an ideal name, because it is not correct. In the first place, the "Pheasant's-eye" is not a Daffodil; and in the second, though it may be the Narcissus of the poets, that does not make it poetic. "Poet's Narcissus" is not so much amiss. If, however, you want a name that offends in every way in which a name can offend, you have it in "Angels' Tears Daffodil." It is not brief, and it is not accurately descriptive, or descriptive in any way, accurate or inaccurate. In addition to these negative defects, it is mawkish, ridiculous, uncomfortable to the tongue and harsh to the ear, as anyone can discover for himself by pronouncing aloud "Angels' Tears Daffodil." I have heard of "tears such as angels weep," those, namely, which were shed by a dusky archangel on a certain memorable occasion; but his tears were more likely to have been of molten lead than of the dainty stuff of which triandrus is made. In selecting English names for Narcissi, the plan has largely been followed of naming from a resemblance to some familiar object, sometimes a familiar flower, as in the case of *N. cyclamineus*. Now, I will put to Mr. Jacob this conundrum—"What familiar flower does *N. triandrus* most resemble?"—at the same time beseeching him not to name this exquisite Narcissus *N. euchsiaoides*, for we have had too much dog-Latin already, to say nothing of dog-Greek.

Since Mr. Jacob invites comment on his suggested names for classes, I may say that in my opinion there ought to be no separate class for double flowers. *Telamonius plenus* is as much a trumpet as Emperor, and Codlins and Cream is quite as incomparable as Sir Watkin; nor does a double Jonquil by doubling cease to be a Jonquil. Again, Mr. Jacob's class-names would gain in brevity, and simplicity by the omission of such unnecessary words as "flowered" and "leaved." I submit that "Jonquil" requires no synonym, being already a recognised English name; besides that, the addition of "Rush-leaved" raises the claims of the Hoop-petticoat, which has also Rush leaves, to say nothing of tenuior, gracilis and juncifolius. The points, however, in Mr. Jacob's suggested class designations which seem to me least satisfactory are his Classes 2, 3 and 4. "*Incomparabilis*" is surely a piece of pedantry which it is time to jetison. It is begging the question to call these Daffodils "*incomparable*"; but, if they must have this pre-eminence, there is the word "*Peerless*," which Parkinson, I think, and subsequent writers have applied to these hybrids. Mr. Jacob describes the *Peerless* Daffodils as

"large-cupped"; but is not this description equally applicable to the Leeds Daffodils (to many of them at least)? Would it not be more accurate and consistent to group the *Peerless* and Leeds Daffodils under one division, as is done with the various trumpets, making two sub-divisions—(a) yellow cups, (b) white cups—just as we have yellow trumpets and white trumpets? When one comes to think of it, there are three sub-divisions of *Peerless*, just as there are three of trumpet Daffodils—yellow, bicolor, and white. I question (though the doubt is, of course, a heresy) whether there is any sufficient justification for the existence of a separate Barr group, though on that point I prefer not to commit myself till I have had the opportunity of examining this season's flowers. The Burbidge Narcissi have been eliminated as a separate class and merged in the Barrs. But is there any greater distance between the Barrs and some of the

respectively. Again and again they have come into my mind—few exhibits have given me greater or more lasting pleasure. Before a White Emperor, a Mrs. Ernst Krelage, an Avalon or a Helios one has quite different feelings. They are rather those of cold academic wonder and admiration at what ingenuity and (from a human standpoint) what chance has given us. With such flowers as these cyclamineus hybrids there comes something different. It is the warmth that one's special favourites like *maximus*, *Santa Maria*, *Frank Miles*, *Autocrat*, *White Queen* and *Countess of Southesk* create. This sort of dual personality is a strange phenomenon. Some may experience it, and then they will know my meaning; but to others it will be inexplicable, as, indeed, it is in its origin to myself. Few of these pretty cyclamineus hybrids seem able to stand the vagaries of a mundane existence, and nearly all of them perish after a few years of life. Nevertheless,



CAMPANULA PUSILLA MISS WILLMOTT. THIS LITTLE BELLFLOWER HAS BLOSSOMS OF SILVERY BLUE COLOUR. (See page 188.)

Peerless Daffodils than there is between the Barrs and the Burbidges? SOMERSET.

DAFFODIL AND TULIP NOTES.

BY THE REV. JOSEPH JACOB.

Barr and Sons' Exhibit at Vincent Square on March 29.—In my last notes I referred to the two beautiful cyclamineus hybrids which were staged on this date. I owe readers an explanation of my segment measurements in *THE GARDEN* for March 27. I put the cart before the horse in the case of the cyclamineus hybrid and *Golden Chief*. These should be: S, $1\frac{1}{2} \times \frac{1}{2}$; and S, $1\frac{1}{2} \times 1\frac{1}{2}$

they are worth acquiring, and people should endeavour to have a few pods of seed every now and again, cyclamineus being the seed bearer and some trumpet variety of good constitution the pollen parent.

There were several vases of a new white trumpet called *Gwendolin*, which caught the eye of many. Note-taking for a paper makes one unwittingly play the part of an eavesdropper; visitors blurt out remarks, and one is "forced to hear" them. *Gwendolin* did not, or some part of her perianth would assuredly have gone red. A point of interest was the difference between blooms from the open in Cornwall and pot-grown ones from Taplow. The former were rather young, but I do not imagine they would ever rival the latter, some of which were particularly fine. I measured

one as follows: D, 4; C, $1\frac{1}{2} \times 1\frac{1}{2}$; S, $1\frac{7}{8} \times 2$. In all my measurements, the first figure, when there are two following a letter, is that of the length of the segment (S) or the corona (C), and the second that of the width. My *memoria technica*, or memory aid, is "l" comes before "w." The perianth is ivory white, rectangular and slightly twisted; corona, pale primrose, with a bold, jagged flange or reflex. I must put in a word for Santa Maria, as I am told that it is hardly ever found in a wild state now. Mr. P. R. Barr told me that it is doing very well at Taplow. This is good news. I only wish some grower would find he could grow it as easily as Chickweed; I feel sure it would command a ready sale. The deep tone of its colouring and the exquisite grace of its narrow, much twisted perianth segments differentiate it from all other varieties. I wonder if this is grown and known in New Zealand or Australia. Dimensions of the flower: D, $3\frac{1}{2}$; S, $1\frac{1}{2} \times 7-16$; C, $1\frac{3}{8} \times 1\frac{1}{2}$.

Robert Sydenham, as the number of flowers noted there gives that order a preference. D stands for diameter of the whole flower; S for the inner segments, and the first number will always be the length and the second the width of the inner or minor segments. C stands for corona, and the first number is that of its length and the second that of its width at the top, including the flange or reflex in its natural or unstretched out pose. I advocate measuring the inner segments, for I believe they are invariably narrower than the outer ones. If these are of good width, it seems necessarily to follow that the perianth is imbricated or overlapping.

Technical Terms.—I am so glad Mr. Duncan Pearson has taken the matter up. I made a mistake when I classed Frank Miles as having a twisted perianth. Of course, it does not twist. "Incurving" is the proper word to describe the way the edges of the segments bend inwards. This is a pleasing feature in many blooms; but the

It does not look quite so much as if that monarch had been at a proverbial "bump supper."

Lucifer I must watch more closely. "Hooded" in descriptions seems to be no more favourable to the flower described than is "magenta." By "hooded" I do not mean floppy, and I do not think any seedling will now be allowed to live with the lopped ears of the old Humeis. Can Mr. Pearson suggest a better name for all those perianth which are not rectangular like Tenby? On criticism I have to make on my own suggestions as printed. Before "hooded" there should have been inserted the words "of the perianth" (THE GARDEN, page 125).

James Carter and Co.'s Exhibit on March 29.—The combination of Daffodils and Tulips was a very happy one. Purple and gold go well together. There were three tall stone vases, with their bowls and their bases a mass of King Alfred or Sir Francis Drake. Crocuses of many shades, ranging from deep purple to pure white, surrounded them in circles or formed large diamond-shaped panels between them. The whole display, which occupied a length of half that of the hall, was arranged on the floor and edged with stone kerbing. Mr. Bard is to be heartily congratulated on this fine effort.

TULIPS.

R. H. Bath, Limited, had a very fine display of Darwin Tulips grown in bowls and fibre. It was a pleasing change to see that they were nearly all on the young side, and in consequence freshness was the pervading note. Le Rêve was caught at its very best. Everyone remarked how well it looked. With this exception and one vase of Suzon (Rectified), all the other Tulips were Darwins. I append their names: Mrs. Potter Palmer, Melicette, Circe, Euterpe, Suzon, Maiden's Blush, Bartigon, Isis, Wedding Veil, Paris Valentine, White Queen, Sierrad van Flora, Rev. H. Ewbank, Palisa, W. Copland, Erguste and Pride of Haarlem. Circe is not so well known as the others. In pots and bowls it looks like a paler Rev. H. Ewbank.

A CHARMING LITTLE BELLFLOWER.

OF all the dwarf Campanulas or Bellflowers that are hardy in this country, it would be difficult to find one that is more charming than C. pusilla Miss Willmott. This glorious little plant has flowers of pale silvery blue, not unlike those of the common Harebell of our roadsides and downs. As will be seen in the illustration on page 187, it is perfectly at home in the rock garden, where it quickly makes large tufts of neat green foliage, surmounted, during July, by a cloud-like mass of dainty pendulous blossoms. It is also one of the best Bellflowers for planting between paving-stones, where the colour of the flowers harmonises perfectly with weathered York stone, or contrasts pleasingly with the dull red bricks that do duty for pathways in many places.

SAXIFRAGA LINGULATA.

THIS beautiful long-leaved Saxifrage is, to my mind, one of the most decorative of the silvery or encrusted family. It makes peculiarly "spidery" rosettes of narrow, heavily lime encrusted leaves, and when the crowns are mature they throw up during May an inflorescence of great beauty, as will be seen from the illustration above. It will be noticed what an immense number of flowers are produced on such a spike.



A BEAUTIFUL ENCRUSTED ROCKFOIL, SAXIFRAGA LINGULATA.

Maid of Athens, a nice, small-cupped Leedsii with pointed segments, showed up very well. I also noticed Mohican—Canon Fowler drew my attention to it. I do not think I had ever realised what a bright cup it has; in this respect it puts its triplet brother, Sunrise, in the shade—I had written "twin brother," but Mohican is one of three, Sunrise and Sunbeam being the other two that came from the same pod. Mohican is a good substitute for Sunrise, particularly as it is so much cheaper. There were two or three fine vases of the large red-cupped Daffodil Sparkler. It has all the look of what it is—an M. J. Berkeley seedling. Admiral Togo, with its clawed or campanulate perianth, was in good condition. I liked its beautiful Nelson shade of yellow.

Measurements.—I intended to send a short notice of my future intentions with regard to the order in which I am taking measurements down, but have not done so. I purpose in future following that of "All About Daffodils," by the late

reverse, the curling back of the petals, is atrocious. I find, too, I wrote "Queen" for "King," and *vice versa* in describing the tops of the coronas of King and Queen of Spain.

With respect to "flange," it does not seem a bad word, as it conveys the idea that the corona is not a top hat with the brim cut off. Mr. Pearson's word "reflexing" is adjectival, and needs a defining substantive, for the only approaches to a true reflexing corona that I have seen are those of the "thumbis." A railway line is not a bad thing, after all, and between the flanges on the rails and those on the carriage wheels we manage to get to London. Corona, too, means crown, and crown suggests metal, and metal suggests flange, and flange suggests, when coupled with a Daffodil, that animation which gives a face so often its charm and a Daffodil hardly ever. I think I would rather talk of King Alfred's flanged crown than his gashed brim (Messrs. J. R. Pearson and Co.'s catalogue of bulbs, 1913, page 44).

while, given reasonable weather conditions, the display lasts for three or four weeks. Provided the soil is thoroughly well drained, this plant does not seem unduly particular as to compost. I grow it in gritty, sandy loam, leaf-mould and old mortar, where it thrives apace, and also in the moraine, where, by the way, the accompanying photograph was taken. The rosettes are best inserted just above a steeply inclined part of the rockery, so that the more or less horizontal spray may have ample room to show off its full character. It will be noticed in the illustration how decorative the foliage is, especially when the rosettes are colonised in a slanting fashion, as there shown. This plant is sometimes spoken of by its synonym *Bellardii*, though from the examples which I have seen in my friends' gardens, the true plant is not well known.

It hails, I believe, from the Italian part of the Maritime Alps, in the neighbourhood of the Col di Tenda, where it is plentiful. The variety *lantoskana* is readily distinguished from the plant under review, on account of its rather more arching inflorescence, which has the bulk of the flowers crowded on the upper surface—giving it a beautiful fox-brush-like appearance—while the leaves are more blunt, decidedly reflexed and prostrate, the rosettes being only about half the size of *S. lingulata vera*.

R. A. MALBY.

SOWING WALLFLOWER SEED.

THESE are few old-fashioned flowers more highly appreciated than the Wallflower. For its scent alone it is always sure of a welcome, but if the varieties are well chosen, their colour also plays a by no means unimportant part in the decoration of the spring garden. The best time for sowing seed has long been a debatable point among gardeners, some preferring to do the work at the end of April, and others delaying it until at least a month later. If the resultant plants receive really good treatment and are not planted in over-rich soil, and are given plenty of room to develop into robust, short-jointed specimens, there is a good deal to be said in favour of the earlier date. On the other hand, if grown too quickly they are likely to get too large and soft to withstand a severe winter, and under such circumstances one would favour a month hence. Their treatment for ordinary purposes is so well understood that it is not necessary to do more than remind readers of the time for sowing. But where they are grown in the crevices of old walls or natural rockwork, positions for which they are admirably adapted, they need rather different treatment. Here it is undoubtedly much the best plan to sow the seeds where the plants are intended to grow and flower. Wallflowers, under the best circumstances, need some care and preparation for transplanting, and if they must be moved to positions such as those now under notice, they must be transferred while quite small. It does not, however, matter much whether April or May be selected for the sowing; but showery weather, so that the small quantity of soil may be made as retentive as possible, should be chosen. In common with some other flowers, the Wallflower has been almost spoiled by so-called improvements. Those with blooms of dirty creamy yellow hue or a nasty magenta purple are mere caricatures of a dear old fragrant flower.

A. B. ESSEX.

DARWIN AND COTTAGE TULIPS IN THE FLOWER GARDEN.

WHEN spring has gone and the exotic and other summer flowers are still under the sheltering care of the greenhouse or frame, the beautiful colours of the Darwin and Cottage Tulips add to the gaiety of the garden. All who cherish the flowers of the spring months have more than a passing acquaintance with the early Tulips, or "Dutch" as they are more familiarly called, the *Duc van Thol*, *Couleur Cardinal*, *Prince of Austria*, *Maas*, *Rose Luisante*, *Vermilion Brilliant* and many others; but the groups indicated in the heading to these notes should win a larger degree of popularity. I was last year looking at a glorious display—a perfect picture of colour association—white, mauve, crimson, lilac and pink, with many exquisite shades, and painted on thick petals composing flowers of goblet-shaped form, held on strong, tall stems. Probably one of the reasons of the comparative neglect, if we may so call it, of these Tulips is that many hardy flower lovers are unaware of their vigorous beauty. I have grown a large variety for many years, and have urged their more general use, not only for their gorgeous beauty in the open garden, but for cutting to fill vases in the house, in which they will remain for days in full beauty, the flowers even developing under these conditions. It is always wise to seek out some good garden or nursery in which the Tulips are grown and choose the colours that appeal most strongly to the individual taste, thinking out also beautiful contrasts, the length of stem enabling many dwarf plants to cover the ground beneath the flood of flowers. It may be asked whence came the "Darwin" Tulips. The name was given in honour of Darwin and to set seal to a distinct and noble group of Tulips that have their origin in *Tulipa gesneriana*, which is as much sought for as its offspring. A bed of this glorious flower is in the full flush of its scarlet beauty early in May; and it is in a group that this colouring is most assertive. A little forest of stems hold huge goblet-like flowers that glow in the sunshine and open out at midday to disclose a deep purple pool of colour in the base. Before all other May Tulips I would select this, queen of the whole family and one of the most reasonable in price. A groundwork of white *Arabis* or white *Tufted Pansy* throws into rich relief the scarlet colour, and, passing to the warm purple shades, a planting of yellow *Polyanthuses* affords a strong and agreeable contrast.

Catalogues and books give long lists of named kinds, and I will mention a few that seem the most picturesque in all ways, possessing remarkable strength of growth and fine colouring. These notes will, it is hoped, prove acceptable to those who are unable to see a collection in bloom but wish to plant the bulbs in autumn. The Darwin group contains the following forms that were chosen for their beauty and splendour in the garden in May and early June: *Carminea*, intense rose carmine, height of stem, 22 inches; *Clara Butt*, one of the most beautiful of the May Tulips and the most popular in Covent Garden Market, the colour a peculiarly beautiful soft rose and the petals of faultless form, 19 inches; *Glow*, vermillion, with deep blue-purple centre; *La Tulipe Noire*, an intensely dark colour, deeper even than

Vulcan, 24 inches; *Dom Pedro*, mahogany colour, 24 inches; *Loveliness*, satin rose; *Pride of Haarlem*, rich salmon, shaded with cherry colour, 26 inches; *Rev. H. Ewbank*, silvery heliotrope, with a margin of a shade that has been well described as dove grey; *Erguste*, deep silvery heliotrope; *Suzanne*, a delightful colour, a mingling of rose and apricot, tall, graceful and one of the kinds that should certainly be chosen; *La Réve*, satiny rose pink; *Tak van Poortvliet*, warm rose salmon, with a soft base, a strong and fascinating contrast, 25 inches; *The Sultan*, or the *Black Tulip* as it is frequently called, a deep maroon approaching black, with wide, strong segments and tall stem, no less than 28 inches. This and *Clara Butt* are planted perhaps more largely in the flower garden than any of their race, and the duskiness of the former contrasts intensely with white flowers such as *Arabis albidia*. *Remembrance*, rich silvery mauve, 24 inches; *Corydon*, a shade of heliotrope, 20 inches; *Black Knight*, deep maroon; and *Zanzibar*, dark maroon, exquisite in the sunlight, complete the list of those that were carefully chosen for a large collection. But few of the Darwin Tulips are unworthy of our consideration, either for growing by themselves or in association with dwarf alpine.

In the great throng of May Tulips, those called "Cottage" deserve as warm a tribute for their rich and varied beauty as the Darwin section that I have just considered. An atmosphere of the Old English garden permeates this beautiful race, and many of those we cherish in our borders have been gathered from the cottage plots in the British Isles and some from the old parterres of France. Fifty and more years ago these Tulips opened their glorious chalices to the spring sun, and it is strange that many of them degenerate when brought, if one may so express it, "under cultivation." Generations passed by, but still in the homely cottage garden the Tulips never failed, year by year bearing company with the flowers of spring.

A garden should contain the following: *Amber Crown*, amber, as the name suggests, tinted with apricot; *Blushing Bride*, cream suffused with pink, which changes to bright rose carmine, 15 inches; *Bouton d'Or*, intense golden yellow, 17 inches; *Dainty Maid*, white, marked with lilac; *flava*, soft lemon colour, 28 inches; *fulgens*, brilliant crimson, 24 inches; the form of Gesner's Tulip called *spathulata*, *Golden Crown* or *Eagle*, yellow, flushed with orange red, the anthers black, 18 inches; *Golden Glow*, rich yellow, 16 inches; *Inglescombe Pink*, *Inglescombe Yellow* and *Inglescombe Scarlet*, a trio of splendid Tulips, 20 inches; *ixioides*, yellow, with a rich black base, 22 inches; *La Merveille*, rose salmon and orange red, very fragrant, 18 inches; *Leghorn Bonnet*, chrome yellow, beautiful in shape, 20 inches; the sweet-scented *crimson macrospeila*, 18 inches; *mauriana*, glowing scarlet, golden centre, 21 inches; *Mrs. Moon*, pointed petals of deepest yellow, one of the finest of all May Tulips, 28 inches; *Orange King*, a lovely orange tinged with scarlet, very sweet, 22 inches; *Parisian Yellow*, 20 inches; *Picotee* or *Maiden's Blush*, white, edged with rose, 20 inches; *retroflexa*, yellow-pointed segments, 16 inches; and *The Fawn*, a soft shade, indicated by the name. A few of these are, correctly, species, but all are noble garden flowers for the month of May; colour, scent, length of flower-stem and broad grey foliage are the attributes of this race.

W. F.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Late Vines.—Remove the surplus shoots as soon as it can be seen which are the best to leave to supply the crop. Although it is essential that the trellis is well covered with foliage, plenty of room must be allowed for the leaves to develop without crowding, or there will be danger of the Grapes not finishing perfectly. If the Vines are infested with mealy bug, an effort must be made to destroy it before it reaches the young growths, as it is very hard to get rid of if neglected during the early stages.

Melons.—The fruits on the earliest plants will now be swelling freely, and in order to get Melons of the best flavour, the plants must be liberally fed with stimulants. During the final stages of growth liquid cow-manure given at full strength will be found an excellent stimulant. When the fruits commence to colour, water must be gradually withheld and the atmosphere kept drier, admitting plenty of air to the house on all favourable occasions.

Melons in Frames.—Preparations may now be made for growing a batch of Melons in frames. It is an advantage to have a mild hot-bed on which to grow the plants, and during the growing season the best use must be made of sun-heat by judicious ventilation of the frames, closing them early in the afternoon after spraying the plants with lukewarm rain-water. The variety *Eminence* will be found very suitable for frame culture.

Plants Under Glass.

Coleus thyrsoides.—This is an excellent plant for conservatory and greenhouse decoration during the winter months. If cuttings are available, they may be inserted now and placed in the propagating-case. During the growing season a house of moderate warmth will be suitable, and unless very tall plants are required, they may be stopped once or twice during the season to keep them dwarf. A batch of cuttings can be inserted later, to flower in small pots.

Gloxinias.—Plants coming into flower must be well supplied with stimulants. At this stage cooler conditions will prolong the flowering season considerably. Pot on seedling plants before they become potbound, and keep them moving in a warm, moist house. These will flower in 5-inch pots.

Eranthemum pulchellum.—This is a useful winter-flowering plant of easy cultivation. Cuttings will readily root in a sandy compost. Insert three or four cuttings round the sides of 3½-inch pots and place them in the propagating-case. When rooted, pot them singly into 3½-inch pots and grow them on in a warm house. The growth will require stopping twice during the early part of the growing season to induce a bushy habit.

Nerines.—When the foliage shows signs of ripening, water must be gradually withheld, thus inducing the plants to rest.

The Flower Garden.

Seedlings.—Many seedling plants may now be put in their flowering quarters if these are vacant. Such plants as *Antirrhinum*, *Dianthus*, *East Lothian Stocks*, *Larkspurs*, *Matricarias* and *Scabious* may be put out; but in the event of cold east winds, a few boughs of evergreen should be placed among them. *Mignonette* ought to be sown in suitable places at regular intervals. *Nasturtiums* may be sown either in their flowering quarters or in boxes. The *Tom Thumb* type is excellent for massing, but the plants must not be put in rich soil, or flowers will be scarce.

The Rock Garden.—Many subjects may now be planted out on the rocks. For summer effect *Campanulas* can be largely employed. Most of the species are easily propagated from cuttings inserted whenever they are procurable. *Geum Mrs. Bradshaw* is excellent for massing in bold schemes of rockwork, and is easily raised from seed sown as soon as it is ripe. Many annuals may be sown on the rocks, and some should also be sown in boxes to take the place of plants which will be out of flower during the summer months.

The Hardy Fruit Garden.

Strawberries.—Some of the later batches of plants which have been forced may be saved for planting outdoors. With proper care these should give an excellent crop of fruit next season. If the ground is ready, they ought to be planted as soon as they have been hardened off a little. Keep them well supplied with water till they have become established. The young plants which were put out last year for the purpose of supplying runners should have their flower-spikes removed. To encourage strong growth, give them light dustings of soot and hoe them frequently.

Raspberries.—The young growths which are now pushing from the base of the plants must be thinned out, leaving only sufficient to replace the old fruiting wood. If not already done, the roots should be mulched with rich manure. Autumn-fruiting varieties must also be thinned severely, or the crop will suffer.

The Kitchen Garden.

Celery.—Endeavour to grow the plants as sturdily as possible by admitting plenty of air to the frames, removing the lights entirely during favourable weather. Water liberally at all times. Prick out later plants before they become drawn. If the soil is placed on a moderately warm hot-bed, it will greatly facilitate the growth of the plants.

Seed-Sowing.—The seeds of Broccoli, Savoys and all winter greens may be sown within the next fortnight. Sow in drills 12 inches apart in soil which is not too rich.

Asparagus.—Seeds may now be sown in the open in drills 18 inches apart, or in small pots. Where time will allow, the latter method is best, as the plants may be put out without a check.

French Beans.—A batch may be sown in small pots for planting out in a sheltered situation. They may be placed in a moderately warm house to germinate, and be hardened off in a cold house. If a frame is available, another batch may be sown therein. The variety *Belfast* will be found suitable for this purpose.

E. HARRISS.
(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Potatoes.—The planting of maincrop varieties ought now to be proceeded with. The importance of an occasional change of stock of this vegetable cannot be too strongly advocated.

Runner Beans.—If a portion of this crop is needed two or three weeks earlier than the main crop to be sown outdoors, some seeds may be sown in 5-inch pots and grown on in cold frames until all danger of frost is past, when the seedlings can with safety be planted.

Onions which were sown indoors during January, and which have been hardening off recently in cold frames, should now be planted out. Slightly more room ought to be allowed them than the general crop sown some time ago. See that the soil is in a firm condition and be careful not to plant too deeply, leaving the small bulbs just on the surface of the soil.

Turnips.—It will now be safe to make a fairly large sowing of this vegetable for use in June and July.

Carrots.—The main crop may now be sown whenever the conditions are suitable. This crop is a worry to many vegetable-growers, but by frequently dusting with soot and other antidotes it is possible to keep the dreaded Carrot fly well in check, if not to get rid of it altogether.

Seakale.—If the supply of this vegetable is required up to a late date, crowns can be placed behind a north wall, where they can be blanched by being covered with fine ashes.

Fruit Under Glass.

Early Vinery.—As the Grapes in the early house are now stoning, no sudden fluctuations of temperature must take place, as this is a very critical time. It is at this period when scalding

is likely to happen if the treatment is not correct. If the border in which the Vines are growing is constructed to allow for proper drainage and the depth is correct, stimulants may be watered in more frequently than would be safe in a deep border with faulty drainage.

Muscat of Alexandria.—This Vine succeeds best in a rather higher temperature than most Grapes. Especially is this important when in flower; then a temperature of 80° to 85° should be the rule by day, with 65° as a minimum by night. A drier atmosphere must be maintained until the setting period is over. As this Grape is not so even a setter as some, a few spare bunches should be allowed to remain until it is certain a successful and even set has been assured.

Late Vines.—As these are now making quick progress, disbudding must receive attention. The rods should now be secured in their places. If the spurs are rather long, it will be an advantage when tying if they are slung a few inches below the wires instead of securing them actually to the wires.

Melons.—After the fruit has set and commenced to swell, more liberal treatment must be given the plants. As surface roots appear, a top-dressing of fine soil to which some fertiliser, such as *Clay's*, has been added, will be of great service. Secure all the sun-heat possible by closing the house as early as it can be done with safety from scorching. The syringe must be used freely if spider is to be kept in check.

Plants Under Glass.

Cyclamen.—Seedlings which were raised in the autumn and potted into 2-inch pots during the winter ought now to be moved into 3½-inch pots. See that the compost is made porous by including plenty of coarse silver sand. The leaf-soil used should be obtained by rubbing clean leaves through a half-inch mesh sieve. Fumigation is necessary at intervals to keep down thrip, to which *Cyclamen* are very subject.

Reinwardtia trigyna.—Where one has to keep up a display of flowers in a show-house, this subject will be found invaluable from Christmas onwards. Used in connection with *Cero-dendron fallax* it is very effective. After taking cuttings, which root very readily, it should be grown in the cool end of a stove. It is also possible to have it in the form of a standard up to the height of 2 feet 6 inches. Although a useful subject in the show-house, it is not adapted for house decoration, as it has a tendency to drop its flowers if handled very much.

The Flower Garden.

Evergreens.—All planting should cease soon after this date. If the ground is very dry, a watering should be given; and if dry winds or bright sunshine continues, temporary shading, in addition to an occasional syringing, will greatly help the transplanted trees or bushes to recover.

Boxwood.—As danger from severe frost is now past, it will be safe to commence the annual clipping of all Boxwood edgings. Formal bushes and topiary subjects should also be attended to.

Half-Hardy and Hardy Annuals.—Whether used to help the display in the herbaceous border or to be grown in a position by themselves, the majority should now be sown, except when a succession of any special subject is required; then another later sowing will be necessary.

Herbaceous Borders.—If the weather is at all dry, this border should be gone over with the hoe. If time permits, many of the *Phloxes*, *Asters* and kindred plants will make much finer heads if the young growths are reduced at this season.

Dwarf Bedding Lobelias.—Whether propagated from seed or cuttings, the plants ought by this time to be sufficiently advanced for removal to cold frames. After pricking out in good sandy soil, the frames should be kept closed and shaded for a few days.

Marigolds.—All varieties of these annuals must now be sown, including the useful *Legion of Honour*. Either a slightly heated frame or a mild hot-bed will suit the requirements of these plants best.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

DWARF PLANTS FOR FLOWER-BEDS.

EARLY spring is the time to make notes for future planting, and at this season those who care for their gardens should be thinking out future work. One point which frequently produces a discordant note during winter and spring is the large expanse of bare soil in shrubberies and thinly planted beds of shrubs. This, however, may be obviated to a large extent by carpeting the ground with plants which are not of rank growth. In selecting subjects it is always advisable to choose those which bloom and mature their growth early, for then the dead leaves may be cleared away before many weeds appear and before the majority of shrubs are in flower. Daffodils are bad plants for the shrubbery, for the foliage is coarse and does not die down until midsummer. Small-growing plants do not rob the ground so seriously, while, if they are kept at a little distance from the shrubs, they do not interfere much with them. Rings which are kept free from grass round the bases of trees may also have a carpet of bulbous plants, for they do not keep away moisture from the roots of the trees as in the case of a thick mat of turf. In addition to being beautiful in themselves, some of these carpeting plants are valuable on account of the contrast they give to early flowering shrubs in the same bed, and, in planting, consideration should be given to possibilities in this direction.

The earliest effects are those produced by Snowdrops and Winter Aconites, which may be used separately or in combination, the display in either case being effective. As a groundwork for Witch Hazels, Snowdrops are delightful, the glistening white of the carpet forming a beautiful contrast to the gold of the Hamamelis. Following closely on these plants are the Crocuses in mauve, white, yellow and purple, one and all combining to make an imposing display. White Crocuses used as a carpet beneath Cornus Mas are well worth trying; while yellow or mauve varieties surrounding a tree of Prunus davidiana alba are effective. Crocuses are perhaps the best of the dwarf bulbous plants to naturalise in grass, for they continue to thrive and increase in grass that is mown regularly with heavy machines from the time the leaves die down until late autumn, an operation which a great many plants would not long survive.

Blue flowers are introduced by the various Chionodoxas and Scillas, and what glorious displays they make, the different shades of colour being particularly pleasing. For carpeting beds of Forsythias or Magnolia stellata they are specially attractive, the latter shrub being peculiarly appropriate for a groundwork of blue, the white blossoms forming an admirable contrast. Good kinds to plant are Chionodoxa Luciliae and its varieties sardensis and gigantea, and Scillas bifolia and sibirica. Brodiaea uniflora is well adapted for making a carpet of flowers, and is suitable for a position about the base of a young tree. A charming blue-flowered bulbous plant is Muscari botryoides, while the form called Heavenly Blue is specially worthy of note. This increases amazingly, and may be lifted and divided every three or four years.

Turning from the strictly bulbous plants, we find others with corms or underground stems which are well worth using. The hardy Cyclamens form charming groups, and are effective by reason

of their richly marbled foliage and rosy purple flowers. With a selection of several kinds, flowers may be had from autumn until late spring. Such kinds as cilicicum, Coum, europæum, ibericum, libanoticum and neapolitanum are all attractive. These well repay a little trouble, the colour of the flowers being different from that of most dwarf-growing plants suitable for the same purpose. In addition to being of service for carpeting beds, C Coum may be planted in grass where it is short and the ground of a more or less spongy character.

Anemones naturally demand attention for the purpose under notice, and nothing can be more beautiful than the graceful inflorescences of some of the kinds. The common Windflower (Anemone nemorosa) is delightful, whether seen growing wild, carpeting a wood or plantation, or planted as an undergrowth to a bed in the garden. In addition to the type there are several varieties which are of value, such as flore pleno and robinsoniana, the former being remarkable for its double flowers and the latter for its finely formed and large blooms. The common Hepatica (A. Hepatica) is well known, and is charming in early spring when carrying large quantities of flowers. A considerable variation in colour is noticeable, for there are forms with blue, white and red flowers. A species of Anemone with pretty blue flowers is A. apennina; it is quite dwarf and makes an admirable "carpet." A. ranunculoides is a yellow-flowered Windflower, which is a decided change from other sorts; it is worth planting beneath a white-flowered tree. A. Pulsatilla (the Pasque-flower) is charming when growing vigorously in a shady place. It is by thinking out such effects as these that our gardens are made both beautiful and interesting. W. D.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

TREES AND SHRUBS.

SALISBURIA WITH PENDENT BRANCHES (H. H.).—The specimens of Salisburia adiantifolia you mention as having pendent branches were probably the female form of the tree, which is usually acknowledged to be of more pendent habit than the male form. Although many examples of this tree are sparingly clothed with branches and rather gaunt in a young state, they become well branched in later life, and form very handsome specimens. We know of male examples in this country which are very beautiful trees, of easy and graceful outline.

ROCK GARDEN.

VARIOUS ALPINE PLANTS (A. H. Lyne).—You appear to be peculiarly unfortunate in growing some of these, and in certain instances we can only conclude they are affected by local conditions of which we have no information. The Ramondia, which you are unable to flower, is a case in point. Grown in sandy loam or this and peat equally, and given a westerly exposure and half vertical position with moisture assured, the plant is usually very free-flowering. In a similar soil mixture, with moisture assured at the root, it is perfectly

happy in full sun. The Nierembergia loves a half-boggy spot in sandy peat or loam, carpeting the earth and flowering freely. The slug pest of this and Aster alpinus should be kept in check by the usual means. Lay flat slabs of rock, bricks or boards near the plants and strew bran beneath. In this way the slugs are attracted and easily destroyed. The Gentians are as great a puzzle culturally as they are fascinating florally, and their charms should tempt cultivators to wrestle with their caprices till they are overcome. Generally they love cool soil and moisture, detesting drought and parched conditions. You are fortunate in growing G. verna so well. You should be the better judge on the spot as to whether the loss of the flower-buds of the alpine Phloxes is due to birds or slugs. The former may be deterred by a few strands of thread placed early over the plants, which may be removed at flowering-time. If the flower-buds are devoured by slugs, the pest will almost surely leave its trail, and will be found usually secreted beneath the tufts. Lay traps as above.

THE GREENHOUSE.

CYPRIPEDIUM FOLIAGE BROWN (A. C. G.).—The source of the trouble with the Cypripedium foliage is to be found in the watering. Possibly your plants have been overwatered, sprayed during a falling temperature, or watered with liquid manure.

CLEMATIS INDIVISA NOT THRIVING (J. E. L.).—Yes; ants are quite likely to carry the scale from one plant to another, and probably you have some other plants in the house infested with it. Search would reveal the position of the ants' nests, and they should be destroyed by burying a piece of potassium cyanide in them (if no animals or children are likely to be about), pouring boiling water into them in the evening, or water in which carbolic acid is dissolved. These measures, with attention to other plants which are attacked near by, and persistent spraying with paraffin emulsion (paraffin, 2½ pints; soft soap, quarter of a pound; water, 10 gallons) should keep the pest in check and allow you to grow the plant satisfactorily.

ADVICE ON SOIL FOR ORCHIDS AND ON STOPPING CARNATIONS (A. H.).—Cattleyas may well be potted in nothing else but sphagnum moss and peat, though some cultivators prefer a sprinkling of silver sand. The proportions should be two-thirds good fibrous peat to one-third sphagnum moss. Owing to suitable peat being scarce, Osmunda fibre is now greatly used in its stead. Generally speaking, the best compost for Cypripediums is one-half yellow loam and one-half fibrous peat, with a good sprinkling of sphagnum moss, silver sand, and small crocks broken up to about the size of Peas. Peat and moss alone has scarcely body enough in it for Cypripediums in general. The outdoor Carnation: raised from layers and planted last autumn must not be stopped, otherwise you will remove all the best flowers.

TREATMENT OF AZALEAS AFTER FLOWERING (J. T. H.).—Whether pot-grown Azaleas should be pruned or not after flowering will depend upon their condition. If they are good, shapely plants, cutting of any kind will not be needed; but if there are straggling shoots, these should be cut back. Sometimes it will be necessary to prune a plant rather severely, in which case re-potting, if it is needed, should not be done till the young shoots make their appearance. The plants will break out into growth all the more readily if kept somewhat warmer than before and frequently bedewed with the syringe. Those that have not been pruned may be re-potted directly the flowers are over, that is, if they require it. Azaleas, however, do not need annual re-potting, in which case an occasional dose of weak liquid manure and soot-water combined will be beneficial during the growing season.

PROPAGATION OF AZALEAS (S. T.).—You do not say whether your question refers to the Indian Azaleas, which in a great number of varieties are so much used for the decoration of the greenhouse during the early months of the year, or to the hardy kinds, which yield such a wealth of blossoms out of doors in the spring. The Indian Azaleas, which are tender, are evergreen in character, while the hardy kinds are deciduous. Propagation of the Indian varieties is almost universally carried out in Belgium, very few being increased in this country. The war did not seem to lessen the supply much last autumn, but it is more than probable that there will be a great shortage this year. A few of the Indian varieties are struck from cuttings, but nearly the whole of them are increased by grafting. The stocks employed are a couple of strong-growing kinds, concinna and phœnicea, propagated from cuttings. These cuttings are taken in the autumn or winter, dibbled into pans or boxes of sandy soil, and kept close in a warm propagating-house. When rooted they are potted into small pots, and grafted in the August following. If your question refers to the hardy kinds—and we should rather be inclined to think it does—it may be noted that large quantities are raised from seeds; but for the increase of named varieties, grafting is the method generally employed. For stocks on which to graft the best forms, seedlings of the same class are chosen. They are established in small pots, and grafting is usually done in the autumn. After this operation they must be kept quite close in a shaded propagating-case till a union is complete, which will take a couple of months or so. Though grafting is carried out in a wholesale manner in some trade establishments, a good deal of practical knowledge and different appliances are necessary, so that it can scarcely be recommended to the amateur. Seeds readily ripen, and young plants can be freely raised in this way. The seeds are very small and should be sown as soon as ripe in clean, well-drained pans, using for the purpose a compost made up of one

part of loam to two of peat, and about half a part of sand. Care must be taken not to cover the seeds too deeply, a sprinkling of silver sand being quite sufficient. Placed in a snug little structure where a temperature of 50° to 60° is maintained, the seeds will soon germinate, and when the young plants are large enough, they must be pricked off singly. If no warm house is available, they should be placed in a frame and protected from frost. Plants raised from seeds cannot be depended upon to perpetuate any particular variety. The best work on the subject is "Rhododendrons and Azaleas," by William Watson, Curator of the Royal Botanic Gardens, Kew, published by T. C. and E. C. Jack, 16, Henrietta Street, W.C.; price 1s. 6d. net.

KITCHEN GARDEN.

THE CULTIVATION OF HARICOT AND BUTTER BEANS (*Nemo*).—The Haricot Bean is the ripened seed of *Phaseolus vulgaris* and other species of *Phaseolus*, as also is the Butter Bean. The culture is very simple—the same as in the case of the ordinary French Bean. Sow in a deeply dug and generously manured border in a sheltered and sunny position the second week in May. The rows should be 2 feet apart. Draw a fairly wide drill 5 inches deep and plant two rows of seeds in each drill thus: * * * * * the seeds to be 4 inches apart. Earth up with soil when the plants are 6 inches high, not burying the stems too deeply. Give the rows a good watering just before the Beans come into flower, and then top-dress the soil with rotten farmyard manure 3 inches deep. As soon as a crop of pods is formed, give another good watering. Keep the ground clear of weeds. The crop will ripen in due course, and when properly harvested the Beans, if kept in a fairly dry, cool place, will keep well for at least a year. Messrs. Sutton and Sons of Reading advertise seeds of these Beans for sale.

MISCELLANEOUS.

HAUNTS OF THE EARWIG (*T. G.*).—Early in the year the female earwig, which has sheltered through the late autumn and winter in holes of various kinds—in fact, in any convenient place—lays eggs in a hole in the ground, under stones, among dry leaves, fifteen or twenty being laid at a time, and remains with them, collecting them together again if they become scattered. After a month they hatch out and the young earwigs remain for a time with their mother. The clearing away of rubbish of various kinds is, therefore, an important step in preventing the attack of earwigs in the succeeding season. In addition to this, disturbing the hiding-places in the spring and seeing that all walls are properly "pointed" would be wise measures. Trapping by means of inverted pots pressed full of hay would reduce the numbers considerably, and if they are shaken out into a pail of boiling water, or water on which a thin layer of paraffin is floating, they are easily killed.

THE EDITOR'S TABLE.

Green Peas for Winter and Spring Use.—Messrs. Barr and Sons of King Street, Covent Garden, send us a packet of their specially selected dried Marrowfat Peas, which, after testing, we have no hesitation in describing as infinitely superior to the dried green Peas sold by grocers. A pint packet, sold at sixpence, post free ninepence, is ample for six persons, and the flavour and quality are excellent. They are easily cooked, and at a time such as the present, when so much attention is being given to wholesome food, we have no hesitation in recommending these Peas.

Carnation Nora West.—The floral committee of the Perpetual-flowering Carnation Society met on March 29 to consider the variety Nora West for a first-class certificate. This salmon pink variety gained an award of merit on December 2, 1914, which rendered it eligible to enter for the higher award. The floral committee, under the chairmanship of Mr. W. H. Page, after closely inspecting the variety as it was growing at the nurseries of the raiser, Mr. George West, Datchet, Bucks, awarded it 85 points. Nora West thereby receives a first-class certificate, an extremely rare award.

Mauchline Flower Show.—The executive have decided to abandon for this year, on account of the war, the annual show of the Mauchline Horticultural Society.

OBITUARY.

GEORGE GREIG MONCUR.

THE death is announced of Mr. George Greig Moncur, of the well-known firm of Messrs. Mackenzie and Moncur, Limited, horticultural builders and hot-water engineers. Mr. Moncur was well known and respected among horticulturists and others with whom his firm did business. He died at Preston Lodge, Prestonpans, on March 31, at the age of seventy-six. He was interred in the Dean Cemetery, Edinburgh, on April 3.

GEORGE NETTLESHIP.

WE regret to have to record the death of Mr. George Nettleship, one of the best-known amateur horticulturists in the South of Scotland for many years, and one who did much to advance all horticultural movements in the district in which he resided. Mr. Nettleship was a teacher, and was for forty-five years the head-master of Sibbaldie School, Lockerbie, only retiring about eight years ago. As a horticulturist Mr. Nettleship was much esteemed, as he was not only an able cultivator, but a judge whose services were in constant request at the most important shows over a wide area. He was a specially good grower of produce for exhibition, and flowers and vegetables from his garden made a good appearance at many of the shows. Florists' flowers were among his favourites, such subjects as Pentstemons, Phloxes, &c., being admirably grown by Mr. Nettleship. In his private life he was much esteemed, while he took part in a number of local movements of a laudable nature. He was predeceased by Mrs. Nettleship. Our sympathy is extended to his family.

SOCIETIES.

AN AMERICAN FLOWER SHOW.

THE INFLUENCE OF BRITISH GARDENERS.

FOR the third year in succession the gardeners and florists within get-at-able distance of New York City have concentrated their efforts, with very great success, upon a great flower show. This exhibition has been held in the largest and most conveniently situated hall, the Grand Central Palace. It is a big square building of many storeys, and the two lower floors are well lighted and excellently adapted for the purpose of a horticultural exposition. The massive pillars and the balustraded balcony are very daintily and elegantly draped and festooned with Southern Smilax, which grows wild in the South, and this form of decoration adds immensely to the scenic effect. Soft electric lights illuminate from the roof every inch of interior space.

This year's show, held from March 17 to March 23 inclusive, a period of exactly a week, was notable because of three features in particular, namely, a small rock garden display by the Julius Roehrs Company, two Rose gardens each covering 500 square feet of space, and a class for a decorative group of flowering plants. In this latter there were six entries, all by private gardeners—men from the Old Country. In the Eastern States there are hundreds of Scottish and English gardeners, and these are the men who are so largely influencing American horticulture to-day. Their American brethren of the craft welcome them. "The English have gardening in their blood," was the remark made by one of them—English, in this sense, comprising all those from the British Islands.

The six groups of flowering stock were on the lines, generally, of what one sees at Shrewsbury Show, except that foliage plants were excluded. Much taste and skill was shown in the arrangement of at least four of them, and it was remarked on all hands that as regards quality, the plants herein would be very difficult to beat. Mr. William H. Duckham, who was under the renowned Chapman—happily still with us—at Weston-birt before coming to America twenty years ago, was first, and had a magnificent central wedge of Hippocastanums, rising backward and topped there with tall Acacias (*A. pubescens*), which had *Tropæolum Firefly* entwined among them. Pyramids of *Schizanthus à la* Messrs. Sutton and Sons, *Chorizemas* (superb little plants), bushy Bougain-

villas, *Cytisus fragrans*, Azaleas and such like were daringly and effectively blended. Other plants that were much employed in this and other of the groups were *Primula malacoides*, Darwin Tulips, *Cinerarias*, *Lilium longiflorum*, *Rhododendron Pink Pearl* and *Lily of the Valley*. *Pelargonium Clorinda* in 12-inch pots (very handsome plants), together with well-balanced, large-flowered Peach trees, Laburnums, Lilacs, Wisterias, and *Buddleia asiatica* were elsewhere noted; and it was indeed like old times to me to view and compare these charming groups.

The Rose gardens referred to were in purely geometrical form—little gardens in miniature, but well planned. One had a pretty white lattice-work fence or screen 10 feet high on three sides, with ornamental cornices and arched gateways, a sundial in the centre, a statuarial piece within one of the arches, and an artistic garden seat at one side. The wedge-shaped corner beds, as well as the round central bed and the borders, were daintily filled mainly with pink Roses, in which Tausendschön, as standards and bushes, figured prominently. Dorothy Perkins was trained to the screen. The other Rose garden was brighter, with crimson Hybrid Perpetuals, also Tausendschön, Baby Rambler and pieces of Katherine Zeimet. A rustic fir branch fence 2½ feet high surrounded it, and an arbour made gave "point" in one corner, while four walks branched from the centre bed. These were in flagstones, with smooth glen moss, representing sward, between and around them.

Roehrs' rockery was very modest as compared with our English rock gardens at the shows; but just think of the possibilities! Some friends here call me "the Narcissus Crank," because of my insistence upon the desirability of introducing more of the fine modern kinds here; but I have been even more insistent in the matter of rock gardening. All that is wanted here, methinks, is a selection of the proper plants for the climate; and surely the flora is large and varied enough to select from. Many of the alpine in this rockery were direct and recent importations from Mr. Amos Perry's nurseries, and Mr. J. Mallinson, who left Kew in 1902, arranged them in this rockery of his own building.

As for the other parts of the shows, they were good; none was poor. The retailers, or those we simply speak of as "florists" at home, who keep flower shops or stores, are more and more taking part in the large American horticultural exhibitions, and they were represented on this occasion with Italian pergola erections, Grecian cupolas, and so on, with their beautiful vases of resplendent Roses, Carnations, Antirrhinums, Sweet Peas, yellow Marguerites, Tulips, &c., as well as made-up pieces, bouquets and floral baskets. The public keenly enjoys these high-class displays. A novelty shown for the first time was in the form of dainty lace paper baskets about the size of one's two hands when cupped together, and they were filled with bright-leaved Rex Begonias, *Caladium Argyrites*, Ferns and Ericas. A demonstration and talk on floral arrangement was given one morning by Mr. Max Schling, a very talented Austrian, who comes of a family of architects in Vienna, and who has worked there and also in London. He is different from many retailers, who merely sell flowers as they would sell beef or mutton, and has a passionate love for them. He abjures wires and all that, and, while always "inventing" new floral arrangements, combinations and make-ups, these are always pieces of real artistry which even our English love of flowers *au naturel* could not but accept. This subject of the proper arranging of flowers and the use of them in all forms of decorations—personal, ballroom and others—is being studied most diligently and in great detail in America, and regular set courses are given by the floricultural departments of the agricultural colleges.

There is one point at the flower shows in America that could well be copied in England—especially if the exhibition extends over several days—and that is setting aside special days for certain flowers. A seven-day affair like the New York Spring Show would be a gigantic failure without these special exhibits. At first they seemed to me to be a nuisance, but now I appreciate their great value. The show opens with all its main features complete. Next day there are competitions for cut Roses. This brings in all the Rose people with their thousands of blooms. Some of the specimen plants of the previous day have been shifted into outer positions to make due space for the Roses, and the planning is so cleverly done that there is no crowding or questionable relegation of groups. Plants like specimen *Schizanthuses* do not look very fresh after a day or two on the floor, and can easily take a back seat. In their place come the cut flowers—one day, Roses, as mentioned; another day, Carnations; then Sweet Peas and Violets; on other days the tables of floral decorations are moved in, so that even if the visitor comes back day by day, there is something well worth his time to see.

This year, a great coup, so far as the success of the show was concerned, was made by giving a considerable space along one of the galleries to the Red Cross organisations. This was made into the model of a very pretty terrace garden, with a Vine-covered pergola over it, and borders of flowers and groups of shrubs about. Each day a distinct Chapter of the Red Cross League "kept house," dispensing tea and cake at a charge of one dollar for each person. All the great dames of the fashionable world of New York and environs took part, and by means of a remarkably well-organised publicity service, in which reporters, engaged by the flower show committee, supplied readable and very accurate reports of the day-to-day proceedings, interpolated with the names and doings of the society ladies—and gentlemen!—the whole Press of New York gave generously of its space to the show, with multitudinous photographs. So we have our "Temple Show" now, too.

J. HARRISON DICK.

THE GARDEN.

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APRIL 24, 1915.

NOTES OF THE WEEK.

The Golden Valerian.—A large colony or a bed of *Valeriana Phu aurea*, with its rich low foliage, has a very telling effect at the present time. In fact, we do not know of any other plant that gives such a striking colour in the spring. It is therefore surprising that this Valerian is not more often met with. It loses its conspicuous colour during the summer, but now, mixed with such plants as red and blue Hyacinths, it makes a very attractive combination.

An Attractive Plant for a Warmhouse.—*Streptocarpus cyaneus* is one of the most charming plants of the whole genus. At the present time it is bearing its graceful flowers in great profusion. They vary in colour from pale lavender blue to rose pink or rosy mauve, and are generally borne in pairs. Like other members of the genus, it is short-lived, lasting little more than a biennial, and closely resembles *Streptocarpus Rexii*. It was first found in 1891 near Barberton, South Africa; but was later discovered at the Reef Bush in Swaziland, whence the majority of plants now growing in this country originated.

Pamphlet on Vegetable Cultivation.—Following on the other leaflets published last autumn and early in the present year, the Royal Horticultural Society has now prepared for circulation a pamphlet dealing with the cultivation of vegetables, principally in small gardens and allotments. The advice given is sound and useful, but we feel sure that the responsible will not misunderstand us when we say that its appearance is rather too belated to be of the greatest service. Had it been available in January, it would have been of considerably more service to the community than at this time. Even now, however, it is well worth the twopence asked for it.

Rosa sertata.—In the note that we published on this Rose in our issue for March 6, we stated that plants had been distributed by Messrs. James Veitch and Sons of Chelsea. Although to some extent, we are afraid that the statement has led to some misunderstanding. We have that seeds of this Rose were collected by E. H. Wilson for Messrs. Veitch, who sent the plant, under number, to Kew a few years since. Then it has flowered and been recorded in the *Botanical Magazine*, where Messrs. Veitch were given the credit for sending it to

Kew. We understand that plants were also received at Kew from Messrs. Vilmorin and Co. of Paris.

Springtime at Kew.—The wilder parts of the famous gardens at Kew are now resplendent with the gold and primrose of Daffodils, planted in the grass so as to give as natural an appearance as possible. That these are highly appreciated

Sparrows and Gooseberry Flowers.—We do not remember sparrows to have been so troublesome in the garden as they are this year. Crocuses, Chionodoxas, Polyanthus, Peas, and even the buds of Daffodils have been ravished by them, and now they are attacking the Gooseberry flowers. This, in our experience, is a new departure. Although we love birds, including sparrows, we have reluctantly come to the conclusion that sterner measures than black cotton and netting will have to be taken with these mischievous rascals.

Professor Keeble's Sad Loss.—We feel sure that horticulturists in all parts of the world will be deeply grieved to hear of the death of Mrs. Keeble, wife of Professor Keeble, Director of the Royal Horticultural Society's gardens at Wisley. Mrs. Keeble was seemingly in perfect health on Wednesday morning of last week, but was taken suddenly ill during the evening and passed away a few hours later. It is only a comparatively short time since Professor and Mrs. Keeble went to reside at Weybridge, so as to be near Wisley, but the deceased lady had already made many friends in the district. The deepest sympathy of everyone who knows him will be extended to Professor Keeble in his exceedingly sad and sudden bereavement.

Gooseberry Mildew in Cambridgeshire.—The Board of Agriculture and Fisheries have received information that the summer stage of American Gooseberry mildew (*Sphaerotheca Mors uvæ*) was discovered in a Cambridgeshire garden on the 10th inst. All Gooseberry growers are advised to examine their bushes carefully, and should any sign of disease be found, to spray their bushes with a solution of liver of sulphur (a pound to thirty-two gallons of water). A leaflet describing the disease and giving directions for dealing with it can be obtained from the Secretary, Board of Agriculture and Fisheries, 4, Whitehall Place,

London, S.W., gratis and post free. Letters so addressed need not be stamped. Growers are reminded that by Article 3 of the American Gooseberry Mildew Order of 1911 they are required to report the presence of this disease on their premises to the Board or the Clerk of the Local Authority for the district, either directly or through an inspector, and that the failure to report is punishable by a fine.



A SPRING SCENE AT KEW. DAFFODILS EFFECTIVELY GROUPED IN TURF.

is evidenced by the crowds of people who visited the gardens on Saturday and Sunday, the 17th and 18th inst. The illustration on this page, from a photograph taken on Thursday of last week, gives some idea of the excellent grouping of the Daffodils between and under lofty trees, where the greensward provides an ideal setting for the flowers. Pictures like this should be noted now for reference at planting time.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

A Tall Specimen of Mahonia Aquifolium.—

In one of the shrubberies here there is a plant of Mahonia (Berberis) Aquifolium over five feet in height. As I have never come across so tall a specimen of this shrub, I am curious to know if it is at all common for it to attain such a height. The plant is growing in heavy clay, and was planted by me thirty-two years ago. May it not be the result of a seedling, developing this tall form?—CHARLES COMFORT, *Broomfield Gardens, Midlothian.*

A Qualified Belgian Horticulturist.—Might I be allowed to call the attention of your readers to the need of a Belgian refugee, now working in our nursery, for a permanent situation, in which his rather unusual abilities would have fuller scope than we can give him? He is able to speak

to my thinking. But the ideal Hyacinths would have all the lovely hues and fragrance of the present garden ones, combined with the graceful form of the finest wild Bluebells. Such flowers would be a real boon at this time of year. The nearest I am able at present to approach this is to plant old bulbs of bedding Hyacinths along the edge of the kitchen garden, and by allowing them to remain undisturbed year after year they yield a number of small sprays, with which I fill bowls for the house. I have tried various kinds of foliage, but the prettiest I have this year seems almost too absurdly simple to describe, only the colour effect is so agreeably fresh and has been so much admired that I will dare to do so. The bowls are filled with some Festuca ovina (the fine bright green Sheep's Fescue Grass) taken up bodily, and the many coloured (or else all white) spikes of Hyacinth, with just a few of their own leaves, set therein. That is all.—ANNE AMATEUR.

A Dwarf Lilac Species.—The flowering shoot of which an illustration is given represents one



SYRINGA JULIANA, A NEW AND DISTINCT DWARF LILAC FROM CHINA.

French, Dutch, German, Spanish, Flemish, and has a knowledge of English sufficient to make himself understood. He has recently managed a large nursery near Antwerp, where some two hundred men were employed, and has been Lecturer at the Horticultural School, Vilvorde, Belgium, and elsewhere, and was for some time in Spain managing an experimental station. Any further particulars would be gladly supplied.—GEORGE BUNYARD AND CO., LIMITED, *Maidstone.*

About Hyacinths.—I want to enlist the sympathy of some readers of THE GARDEN with regard to Hyacinths, those flowers so lovely in colour and fragrance, but, as usually grown, so absolutely impossible (on account of their stiff, ugly, clumsy shape) in the house to any eye which demands beauty of form. I read in THE GARDEN recently that a famous firm of florists is going to give us Hyacinths with several light spikes instead of one orthodox large, awkward one. This is good news, and a step in the right direction,

of the dwarfest of the race and one that, although not particularly showy, is nevertheless very fragrant and interesting. It is quite possible that it may prove of considerable service to those who make a feature of raising hybrid plants. Writing of this in *Country Life*, Mr. W. J. Bean says: "Syringa juliana is a twentieth century introduction of Wilson from Western China. Although it has not the splendour of the common Lilac group nor rivals even the Persian Lilacs in beauty, it flowers freely, as our illustration shows, and it has, also, the characteristic and delightful fragrance of its race. The flowers are nearly white on the upper side, but beneath they are deep lilac, while the calyx is violet coloured, a striking contrast. The leaves are velvety, with down beneath. It commences to flower at 1 foot 6 inches to 2 feet high, and will not, I should say, grow more than 4 feet or at any rate 6 feet high. It likes a loamy soil and abhors drought."

Early Syringing of Roses for Mildew.—those excellent articles by Professor Houst last spring in THE GARDEN, mention was made by him of mildew living on the stems of Rose bushes all the winter. That being so, it seems well to remind readers—especially those who have had occasion to write so complainingly of the presence of mildew—that an effort should be made at this time of year to give the trees thorough syringing with a suitable fungicide. In their almost leafless state the wetting of the wood is an easy matter with a proper spray, while the good result should be quite obvious. Sulphide of potassium is acclaimed by pathologists to be one of the best, if not the best anti-fungal wash, applied usually at the strength of half an ounce to a gallon of water. But while the trees are quite dormant the strength might with advantage be increased to three-quarters of an ounce to a gallon; it will be more effective, and there is no foliage to fear of hurting. That is the proportion in which I have just been using it. There is no doubt that a large share of the mildew in private gardens comes in on fresh plants from the nurseries in the autumn, and if these are not dressed early in the year as above advised, mildew must be more rampant the following season. Only last autumn I was forcibly reminded of this fact by a batch of Rose plants we obtained to re-stock a bed. Though procured from a first-class firm there was no mistaking how badly they had been affected, and, of course, still had traces on the decaying flower-stalks and few remaining leaves. C. T., *Highgate.*

Vegetable Manure.—I should like to thank your contributor "Avon" for his letter in THE GARDEN for April 10, page 171, about my note on vegetable manure, published recently. I quite agree with him when he advises readers to burn as much rubbish as possible and spread the ashes for future use; but the results would be more satisfactory if the soil of the garden were treated with animal manure as well when it is being dug next autumn. Readers should remember that (although wood-ashes are most useful) to dress a big garden with ashes from a garden bonfire is not a substitute for animal manure, even if sufficient ashes could be stored. But well-rotted vegetable manure of the kind I outlined in my previous letter is not only a substitute, but a very good substitute, for animal manure. Vegetable manure supplies humus, and that is what many (especially light) soils require, and humus is the essential of all winter manuring of soil. We can have the most perfectly compounded artificial (*i.e.*, chemical) fertilisers, but that is not to my mind, can only very rarely be used with manure in winter digging. Humus is not supplied by any real chemical fertiliser, and as the ultimate source of humus (*i.e.*, stable manure) will be inadequate for obvious reasons to meet the demand this year, I recommend vegetable manure to be used instead. As "Avon" remarks, the method will be somewhat of a nuisance in some places, but there are, I feel certain, many others where it could be managed. With regard to salt lime, the former might be used, seeing that it kills insects and their eggs; but lime is used to keep down any unpleasant smell as well as the above. We do not, of course, put Cabbages and the like in with the rubbish for vegetable manure; soft material alone is used as previously pointed out. Cabbage and other stuff are burnt to ashes with Ivy clippings.—F. ELLIS, *Weetwood, Ecclesall, Sheffield.*

Hurdle for Shelter.—If your correspondent, whose letter appears on page 170, issue 10, will closely examine the hurdle illustrated in the issue dated March 27, will see that it is not the ordinary sheep hurdle, but a hurdle, which has been in existence for the last thousand years, one might truly say. I do not say that even this type of hurdle, which is very popular for sheltering plants, has not been made also for many years; but I do say there are thousands of readers to whom this hurdle was not known, and it is for these that I write.—E. MOLYNEUX.

Potato Warwick Castle.—The advantage of the new second-early Potato lies in the fact that, apart from its heavy cropping quality, its cooking is not impaired by keeping. When dug in August, it was excellent, and now—early in April—it is even better, if possible. The flesh is white, firm, and of very good flavour. The pebbled tubers are large and handsome, with that high exterior which denotes quality within. The firmness, too, of the skin at this season without special preservation is remarkable. As a potato I think most highly of the new-comer. Those who have not grown this variety should take no time in adding it to their list, either as a second early or for late use.—E. M.

Some Beautiful Hardy Primulas.—Two very beautiful dwarf Primulas in flower at the present time are *Primula Kellneri* and *P. hirsuta* Mrs. J. H. Wilson. The former has smooth, dark green leaves, somewhat glandular. Borne quite singly on stems about two inches long are lovely, crinkled, claret rose coloured flowers with white centres, like so many five-pointed stars. This plant is said to be a natural hybrid of *P. hirsuta* crossed with *P. minima*, and is sparsely distributed over the Brenner Pass. In striking contrast to many rare plants, Mr. Reginald Kellner, in speaking of this group of Primulas, says: "All these in the garden are not only the most gratifying heartiness, but are also—especially *P. Kellneri*—of an even greater generosity in the way of flower than they are on their own native hills." Plants divided last year are thriving here in a loamy soil, and seem to succeed equally well in either semi-shade or any position. *P. hirsuta* Mrs. J. H. Wilson is often spoken of, though in error, as a variety of *P. viscosa*. Its leaves are longer than the preceding, and of a lighter green colour; in fact, the plant is larger in all its parts with the exception of the flowers, which, though more numerous, are not individually quite as large. They are borne profusely in trusses of violet purple, with well-defined creamy centres. Both the above are of easy culture, and are worthy of being more widely known and grown.—JOHN G. BROADHEAD, *Goldale Nurseries, Thongs Bridge, Huddersfield.*

A Rare Plant in Scotland.—Nearly sixteen years ago I wrote a note on *Carduncellus pinnatus*, which was published in THE GARDEN on October 7, 1899. I have had the plant in my garden all that time, and I can state with all confidence that it is one which I never tire of possessing, though it never gives many flowers at a time. It first came to me through the kindness of Sir Frederick Moore, on my expressing my admiration for the *Carduncellus* when seeing it at Snevin for the first time. Then the plant was far from common, and it appears to be as rare as ever now, as I never meet with it in the garden, except in those to which I have sent it. In 1899 I described it as a plant about three inches

high, with pinnate leaves and with a flower like that of a Cornflower borne singly in the centre of each tuft of the plant; this flower is of a light purplish blue. I can only correct what I said by stating that the height is sometimes a little more than three inches. As I remarked when writing about *C. pinnatus* at that time, its fault is that of producing few flowers, and I have never obtained more than a few at a time, even on good-sized plants. It is an easy plant to grow, and thrives well with me on a light soil, both in the rock garden and in the border. It spreads freely at the roots, yet not so rapidly as to be a menace to other flowers. Its seeds freely, but much of the seed appears to be infertile with me. *Carduncellus pinnatus* is one of some fourteen species named in the "Index Kewensis," and is synonymous with *C. acaulis*. It is vaguely reported to be from the East.—S. ARNOTT, *Dumfries.*

Bulbs for Spring Planting.—The article on the above on page 165, issue April 3, ought to have awakened interest among those who labour under the impression that, apart from *Gladioli*, *Begonias* and *Anemones*, there are no bulbs except *Daffodils* and others that flower in spring. It might be pointed out that *Gladioli*, *Begonias* and *Anemones* are not strictly bulbs. This, however, is a mere detail. The point is to encourage the planting of bulbs, tubers, corms and rhizomes that yield a crop of flowers during the summer months. Such bulbs are, for the most part, all available for spring planting. Dry roots of *Dahlias*, either the pot-grown sample or full-sized roots, will flower earlier and make a bigger show than spring-rooted cuttings if planted dormant in April. *Cooperia pedunculata* is a charming little white star-like flowering bulb. It is a Texas plant that opens its flowers in the evening. *Anomatheca cruenta*, bearing red *Freesia*-like flowers, blooms very freely. *Bravoa geminiflora* is quite a stranger to most gardeners. It is a Mexican bulb, sending up tall spikes of coral red, tubular flowers. The bulbs are hardy in some districts, but the safest plan is to lift and store them in fibre or sand. This bulb has fleshy roots, which should not be dried off. It can be raised from seed quite easily, but as the bulbs can be obtained from bulb merchants at 2s. a dozen, raising from seed is scarcely worth while. It is a charming summer bloomer that ought to be better known. The various *Crinum*s are all available for spring planting. *Bessera elegans* and *Milla biflora* are both charming little bulbs from Mexico that are easily flowered; they cost but little. The Peruvian *Daffodil* (*Ismene calathina*) bears beautiful white flowers, and, if planted deeply, it need not be lifted in the autumn. Strong bulbs only cost about 2s. 6d. a dozen. *Watsonia Ardernei* is another delightful bulb, giving spikes of white flowers. *Rigidella immaculata* bears scarlet flowers, and calls for no special treatment. *Cypella Herbertii*, treated like a *Gladiolus*, yields very pretty yellow flowers, and few people know it. Indeed, one might easily extend the list of bulbs that will give a display if planted now. Moreover, many of these bulbs would prove a delightful surprise.—T. A. W.

FORTHCOMING EVENTS.

April 27.—Royal Horticultural Society's Meeting and Exhibition and the Auricula and Primula Show, Vincent Square, Westminster.

April 29.—North of England Horticultural Society's Show and Perpetual Flowering Carnation Society's Exhibition at Leeds (two days).

THE BEST HARD-WOODED PLANTS.

COMPARATIVELY few hard-wooded plants have been shown at the recent meetings of the Royal Horticultural Society, but included in that limited number are some remarkably attractive subjects. Taken altogether, hard-wooded plants in general are so beautiful that one cannot help regretting that they are now so little grown. The reason of their present-day neglect is, I think, to be found in the fact that their flowers are not large (as size counts for a lot with most people), and also that they need a good deal of care and attention in all stages of growth. Probably at some future time hard-wooded plants may again come into their own. Meanwhile, a note on a few of those that still retain their popularity, and also on some that might with advantage be more grown, may not be out of place.

Greenhouse Heaths.—The species and varieties of greenhouse Heaths used at one time to be reckoned by hundreds, most of which have practically disappeared. Still, a few of our market cultivators grow large quantities of a limited number of kinds, chief of which are *Erica candidissima*, white; *E. caffra*, white; *E. cavendishiana*, yellow; *E. gracilis*, rosy purple; *E. g. nivalis*, white; *E. hyemalis*, rose and white; *E. h. alba*, white; *E. melanthera*, pale mauve; *E. persoluta* alba, white; *E. propendens*, lilac; *E. spenceriana*, rosy lilac; *E. ventricosa*, purplish red; and *E. willmoreana*, reddish rose. Several of these kinds have been exhibited of late, and many of the plants showed evidences of great cultural skill.

Boronias, too, are another genus of hard-wooded plants that are still extensively grown. The first to bloom—for its earliest blossoms expand soon after Christmas—is *Boronia megastigma*, remarkable for its delicious fragrance. Being brown outside and yellowish within, the flowers are not particularly showy, but their sweet scent well compensates for this. The next to flower is *B. heterophylla*, which is, like the preceding, a favourite with the market cultivator who makes a speciality of this class of plants. The blossoms of this are of a bright carmine rose colour. Later than either of these two comes *B. elatior*, with rosy red flowers. A very distinct species is *B. serrulata*, but it is now very rarely seen, though Messrs. Balchin, when at Hassocks, used to grow it remarkably well. They were also noted for the charming blue-flowered

Leschenaultia biloba major, which has never been shown in such good condition as it used to be from that Southdown nursery. The scarlet-flowered *L. formosa* seems to have almost, if not quite, dropped out of cultivation.

Azaleas are still extensively grown, though not in the shape of large specimens as they used to be. They have been this season remarkably fine; but as nearly all our plants are imported from Belgium, a shortage may reasonably be anticipated during the forthcoming autumn.

Acacias.—The smaller-growing *Acacias* that can be flowered successfully in pots are, in some cases at least, freely grown. This is doubtless to a certain extent owing to the fact that they are far less particular in their cultural requirements than the majority of hard-wooded plants.

Besides those before mentioned, the following are all worthy of occupying once more a prominent place in our gardens:

Aotus gracillima.—A loose, graceful-habited shrub, whose long shoots are densely clothed with small, Pea-shaped, yellow and crimson flowers.

Aphelexis.—A pretty class of Everlasting Flowers now included in the genus *Helichrysum*. They are of a dwarf, shrubby character, with the stems and young leaves clothed with a hoary tomentum. The flowers, borne on the points of the shoots, are in *A. humile* of a delightful shade of satiny pink, while in *A. macrantha purpurea* they are of a deeper tone.

Chorizemas.—These are met with more frequently than some of the others, and their bright-coloured, Pea-shaped flowers make a goodly show in the greenhouse early in the year. The best variety for comparatively small pots is *C. Lowii*.

Correa (Australian Fuchsia).—The showiest of the *Correas* is *C. cardinalis*, whose drooping, tubular-shaped blossoms are borne in the winter and early spring.

Crowea.—There are two species of this genus, namely, *C. saligna*, which blooms in the autumn and winter; and *C. angustifolia*, which flowers in the spring. Both have pink blossoms.

Diosmas.—Pretty Heath-like plants with fragrant foliage and little terminal heads of blossoms, white, bluish or mauve in colour.

Epaerises.—These are certainly grown more than some of the plants herewith mentioned, but they are not so generally met with as their merits entitle them to be.

Eriostemon.—All the members of this genus form neat bushes, which in the spring are thickly covered with white starry blossoms.

Hovea Celsii.—A leguminous shrub of a rather rambling character, with Pea-shaped blossoms of a beautiful blue tint. It needs careful handling, and used to be regarded as a good test of the cultivator's skill.

Pimelias, with their heads of pretty, light-coloured flowers, were much grown in the olden days, but are now seldom seen.

Polygala dalmaisiana.—The rich rosy purple blossoms of this *Polygala* gain it many admirers when in flower, which is during the spring.

Platythea galioides, also known as *Tremandra verticillata*, is a slender-growing plant with linear leaves disposed in whorls. The saucer-shaped, drooping blossoms are of a delightful shade of blue. This list might be considerably extended, but lack of space prevents.

It may be noted that practically all of these hard-wooded plants have fine, delicate roots and need a compost mainly consisting of peat and sand. Potting must be firmly done, and watering at all times carefully attended to.

H. P.

CHINA ROSES.

I HAVE an idea that the exquisite, old-fashioned Roses which bear this distinctive name are in danger of being ignored. Yet it cannot be questioned that some of their modern representatives are sufficiently effective, in their form and colouring, to preserve this charming race of fragrant Roses from premature extinction. Many of them are as delicately tinted as the Teas or even the *Rosa pernetiana* creations. Since the memorable days

fascination are *Comtesse du Cayla* (recently added to my highly attractive collection in the garden at Kirk House, where Roses of all kinds are growing most vigorously), *Mme. Eugène Resal*, a lovely combination of delicate pink and orange; *Mrs. Edward Clayton*, *Fellenberg*, *Jean Bach Sisley*, and the refinedly beautiful *Mlle. de la Vallette*. These fascinating Roses are of such almost inestimable value by reason of the attribute we term perpetuity, and which the French with even greater expressiveness call *remontante*, that they should be cultivated assiduously and lovingly in every Rose garden that is worthy of the name.

DAVID R. WILLIAMSON.
Kirk House, Kirkmaiden,
Wigtownshire, N.B.



THE NEW BORDER CARNATION DAISY WALKER. THE FLOWERS ARE WHITE FLAKED WITH ROSE SCARLET.

A GOOD NEW BORDER CARNATION.

THE fancy class of the hardy border Carnation has a valuable addition in the variety *Daisy Walker*, illustrated on this page. This received a first-class certificate from the National Carnation Society, London, winning also in its class the Cartwright Challenge Trophy for its perfect border habit. It has a pure white ground, lightly and beautifully marked with rose scarlet. The flowers are very large, of perfect form, and borne erect on very stiff stems. All border Carnations should be of such sturdy habit that little or no staking is required. Mr. James Douglas, the raiser and introducer of *Daisy Walker*, now insists on all novelties having this desirable characteristic; otherwise, however fine the blooms may be, they cannot rank as improvements on the older varieties.

THE WHITE-FLOWERED LAVENDER.

To some people the metallic blue tint of the ordinary Lavender flowers is half their charm, but others appreciate deviations from the normal, providing such changes are in harmony with the general character of the plant. A variation of this kind will be found in the white-flowered Lavender, *Lavandula Spica alba*,

when the late Dean Hole of Rochester sang the praises of the "Brave Old Monthly," the China Roses have made a very remarkable advance in the direction of artistic perfection.

They were always of great value by reason of their vigour, their wonderful refinement of aspect and their splendid floriferousness; but of late years their progress in intensity and distinctiveness of colour has been especially observable. For a long period the fine variety entitled *Laurette Messimy* (which may be said to have created a kind of sensation on its first introduction) was one of my favourite varieties, and it still receives every attention in my garden. But of even greater

a plant that has been known for some time, and yet which, for some reason or other, is by no means extensively grown. That this should be so is difficult for one who has grown and appreciated the plant to understand. It is nearly, if not quite, as fragrant as the ordinary Lavender, flowers freely and possesses a good constitution. In all gardens where common Lavender thrives, the white-flowered variety may be relied upon to do well, and at least a few plants should be grown. The blossoms are not the pure glistening white that we find in the *Snowdrop*, but rather a sort of greyish white. They are, however, quite distinct from those of the ordinary Lavender.

H.

THE HEATH GARDEN IN SPRING.

THERE are few more pleasing features in the outdoor garden at any season than the home of the hardy Heaths. In midwinter, as we have on more than one occasion shown in these pages, there are several kinds in flower, and the display is continued by others right through the spring, summer and autumn. Just now there are several very beautiful kinds in flower, the most charming of all being the so-called Winter Heath, *Erica carnea*. Although the flowers of this actually open during the waning days of winter, it is not until spring is here that their full beauty is revealed.

It is a generally accepted belief that *Ericas* and other peat-loving shrubs of the same Natural Order, such as *Rhododendrons* and *Azaleas*, will not thrive over soils containing lime or chalk. In this bright rose-coloured Heath we have a notable exception, for even though it shows preference for a sandy peat or loamy soil, it will, nevertheless, thrive in a soil rich in chalk or limestone. In Lord Sherborne's garden, situated in the middle of the Cotswolds, where the soil is nothing but limestone, this accommodating Heath spreads rapidly and flowers abundantly. This is a point worth noting, and those who have not yet been successful in the cultivation of Heaths should not despair before giving *Erica carnea* a trial. It is a low-growing species not exceeding 6 inches in height, and when established never fails to display a carpet of bloom in the springtime. It is an admirable subject for planting in the foreground of the rock garden.

A taller species that is now very beautiful is *Erica mediterranea*. This must not be confused with *mediterranea hybrida* (now named *darleyensis* at Kew), which flowers in midwinter and is of much dwarfer habit. *Mediterranea* proper makes a more or less erect bush several feet in height, and in April is freely bespangled with its pink flowers, which are delightfully fragrant. It is a native of the south-west provinces of France and Spain. There is a white-flowered form of it named *alba*, which makes a rather more compact bush and is not so good as the type. The Tree Heath, *Erica arborea*, has nearly finished flowering.

It was introduced from the Mediterranean and Caucasus as long ago as 1658, and is to be found in a good many gardens. It forms quite a large shrub, sometimes as much as 20 feet in height, and is usually freely clothed with its white blossoms in early spring.

Very similar in appearance is the Portuguese Heath, *Erica lusitanica*. It flowers at the same time, and in most gardens is now past its best. A very pretty Heath that many find difficult to grow is *Erica australis*. It also is a native of Portugal, and although of rather a loose, ungainly habit, is well worth trying on account of the colour

of its flowers; this is a charming shade of rose red.

This Heath flourishes in many Cornish and other West Country gardens, where it attains a height of 5 feet; but one does not often see good plants in the London district. Just now it is at its best, so far as flowering is concerned. The foregoing may be regarded as the best of the spring-flowering Heaths; those that blossom in summer and autumn will be described later.

ERICA.

PRIMULA INVOLUCRATA

THIS dainty *Primula* rejoices in a moist position in the rock garden. It is a native of the Himalaya, producing fragrant, creamy white flowers borne on slender stems well above the rosettes of bright, shiny leaves. This year it has flowered with remarkable freedom. Moisture is essential for the well-being of this species, and it will thrive even in a bog



PRIMULA INVOLUCRATA, A BEAUTIFUL HARDY SPECIES WITH CREAMY WHITE FLOWERS.

garden. It is seen to best advantage when grown under similar conditions to the beautiful *Primula rosea*—that is, in peaty soil by a stream in the lower parts of the rock garden. Here the plants will thrive and flower during May and early June. There is, however, just a risk of losing the plants in the winter, when, as in the case of many other *Primulas*, the rosettes of foliage die down. This is obviously a *Primula* to plant in little colonies, for isolated plants seem lost when planted out in the rock garden. Our illustration depicts a small colony of this *Primula* effectively grouped by Mr. Clarence Elliott in his rock garden exhibit at the Chelsea Show held in May last, when it created a considerable amount of interest among connoisseurs of hardy plants. We wonder what the prospects of the Chelsea Show for this year are. So far as we can ascertain now, the rock and other gardens will be considerably curtailed.

THE ROWAN OR MOUNTAIN ASH.

ON the Scottish mountains one may often find beautiful effects formed by wild trees of the Mountain Ash, sometimes growing alone, but more often in the company of Birch, Scots Pine and wild Juniper. The trees are sometimes in fair sized groups, particularly when growing on the gentler slopes and in the valleys, but when growing upon precipitous mountain sides or among the crags of almost perpendicular walls of rock they more often occur as scattered, isolated trees or in clusters of two or three. Wherever found, however, they appear to occupy the right position, and in the autumn, when covered with bright red berries, add much assistance to the Heather

and other plants which are responsible for so great a share of the wide-famed autumn beauty of the Scottish Highlands.

Under natural conditions the Mountain Ash is usually smaller than when growing in gardens, and is often found as a bush or small tree below 15 feet in height, altitude, poor soil and exposure being responsible for reduced growth, although there are few places where tree growth is possible that it absolutely refuses to thrive.

In gardens it is a great favourite, for not only is it attractive in May when covered with its dense heads of white flowers, but the leafage is distinct among other trees, and there are few species with such brilliant fruits. In some parts of England it is used effectively on the outskirts of plantations, but not so often as its value warrants, and more extensive plantings might be made with advantage. Any trees and shrubs of the right types which harmonise with our

native trees may be used for the outer parts of plantations, where those with brilliant fruits or autumn foliage serve to brighten the landscape by creating patches of brilliant colour among the sombre-hued Pines and other trees of that class which are so often planted for silvicultural purposes.

Moreover, the wood of the Mountain Ash is valuable for various kinds of work, although it is not obtainable in sufficient quantity to make it a commercial success at the present time. Being hard and close-grained, it is useful for turning, and with other kinds of *Pyrus* wood may be used for many small articles. The typical *Pyrus Aucuparia*, the common Mountain Ash, is not, however, the only kind available for planting. Horticulturists have selected a number of kinds for varietal names, which are really better than the type for garden purposes. The majority are distinguished by differences in the size or colour of the flowers, but a few exhibit differences of habit or foliage. In the succeeding

essential to the most effective weeping trees. *P. A. asplenifolia* differs from other varieties by having the margins of the leaflets deeply cut, a curious little lobe often being present at the base of each leaflet. *P. A. laciniata* also has its leaflets deeply lobed. Both have red fruits. *P. A. Dirkenii aurea* has yellow variegated leaves. It cannot, however, be regarded as an important variety, for the golden colouring is not really first-rate. The American Mountain Ash, *P. americana*, is also worth attention, and in many ways is quite as beautiful as our native tree. Its berries are, if anything, larger than those of the common Rowan, and are borne in larger heads. The variety *nana* is, however, preferable for most gardens. Of lower stature than the type, it is, nevertheless, of vigorous growth and compact habit. Its branch system is stiff and upright, its leaves dark green and of a peculiarly healthy appearance, while its large, bright red fruits are borne in bunches which are often 9 inches across. The common Mountain Ash is easily

make the most of. For adding charm to the tiny pool or more majestic lake they have no peer, and as they are not difficult to cultivate, if not actually to perfection, at least to a high degree, we may reasonably expect in a few years' time to find them much more widely grown than they are at present.

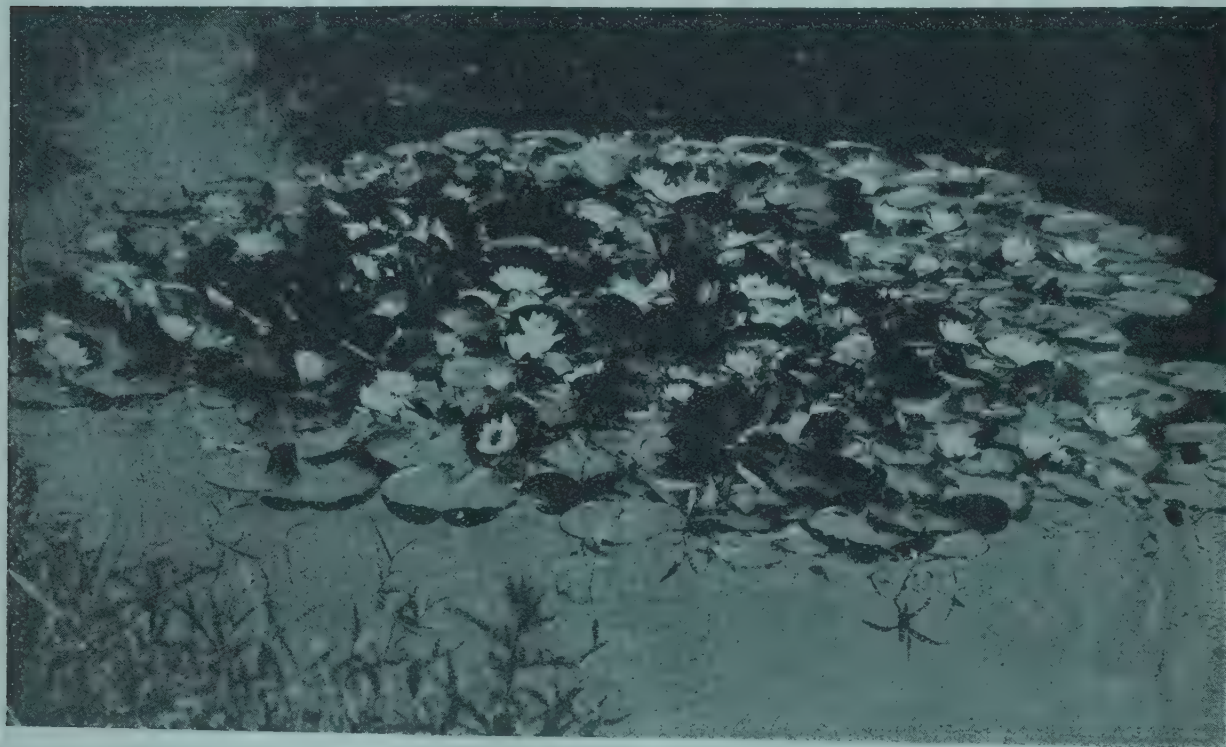
There are, however, a few essentials to success. Almost still water is necessary, as also is a sunny position. If in partial or permanent shade, the flowers do not open freely, and consequently much of their beauty is not revealed to the observer. Shelter from strong winds should also be aimed at. I know of few plants that look more miserable when tossed about by boisterous winds, and often considerable damage is thus caused to the large leaves, which, when well preserved, are in many instances second only in beauty to the flowers themselves. Then, the grouping of the plants needs some little care. Generally speaking, formality should be avoided like the plague; a water garden must, above all else, be informal,

or as Nature herself would have it; hence straight rows of plants, well grown though they may be, can scarcely be said to exhibit that informal grouping that one has in mind as being so desirable.

Undoubtedly the best time of the year to plant these Water Lilies, and, incidentally, to divide any that need it, is from the middle of April until about the third week in May. At that time new growths begin to get active and the plants quickly establish themselves in their fresh quarters, and consequently receive the least possible check. Whether or not an established plant needs lifting and dividing is a question that must be determined on the spot. If a plant has obviously become overgrown and congested, as exemplified by crowded leaves and stems and few flowers, then such a course is necessary and desirable; but with a great many of the newer hybrids such measures are seldom called for. So long as a plant is healthy and producing each year a reasonable quantity of good flowers, it is a golden rule to leave it well alone. When

division is done, a strong crown and some roots should be secured to each portion, a sharp knife being used to cut through the thick tuberous-like rhizome that is characteristic of many varieties.

Reverting to the actual planting. Having determined the depth it is desirable to submerge the plants—this ranging from 18 inches to about six feet, according to the variety—some preparation of soil and receptacles for the plants must be attended to. Mr. James Hudson, V.M.H., the well-known head-gardener at Gunnersbury House, who grows these Water Lilies better than anyone else I know, uses Strawberry punnets for the small plants that are usually received from the nursery, and the large wicker sieves or nursery rounds for plants of more ample dimensions. These, in the course of a year or two, decay, but meanwhile the roots have been able to find their way through the wicker-work, and the plants are therefore by that time quite able to take care of themselves. So far as soil is concerned, one



NYMPHÆA MARLIACEA ROSEA, A BEAUTIFUL AND FREE-FLOWERING HARDY WATER LILY.

notes attention is directed to a few of the best: *Pyrus Aucuparia moravica* is a very fine fruited kind, its rich red berries being larger than those of the type. The growth is very vigorous, and the handsome leaves 9 inches to 12 inches long with red midribs. It is one of the best of all. *P. A. discolor* is distinct by reason of its orange-coloured berries, which appear in large clusters. A very distinct variety with yellow fruits is found in *P. A. fructu luteo*. This should always be grown as a well-marked kind. *P. A. integerrima* is useful for gardens of restricted area, for it is of close, fastigate habit, with the appearance of a dwarf Lombardy Poplar. The berries are red and borne freely. *P. A. satureifolia* has some affinities with the yellow-berried Rowan, for its fruits are a similar colour, but the bunches are larger and the tree rather more vigorous. *P. A. pendula* and *P. A. p. Dawsonii* both have a pendent habit, but neither is a really handsome tree, for the poise of the branches is such as to preclude the degree of gracefulness which is

raised from seeds, while the different varieties are grafted or budded upon stocks of the type. W. D.

PLANTING THE HARDY WATER LILIES.

IN those gardens where comparatively still water exists, there are few more interesting operations during the spring months than the planting of hardy Water Lilies or *Nymphæas*. To those who only know the family by the white-flowered British species, beautiful though it is, the many lovely, gloriously coloured hybrids that are now obtainable will come as a pleasant and interesting surprise. Sufficiently hardy to withstand our ordinary winters with impunity, and embracing varieties suitable for deep and shallow water, these comparatively new Water Lilies hold possibilities that the average gardener of to-day does not

cannot do better than give Mr. Hudson's recipe, which is as follows: A layer of decayed leaves is first placed over the bottom of the basket, then some broken-up turfy loam of good quality, with some road scrapings added, and into this the Water Lilies are planted and tied so that they cannot escape while the baskets are being submerged.

There are now a great many varieties obtainable, some with yellow flowers, others with varying shades of red, and others, again, with blush pink blossoms. All are beautiful and hardy, and names with descriptions can be obtained from any good catalogue of hardy plants for spring planting. F. W.

DAFFODIL NOTES.

BY THE REV. JOSEPH JACOB.

"London, 1915."—The contrast between the outward circumstances of this year and last could not well be greater; lateness instead of earliness, and war in the place of peace. Truly, "one never knows." Poor "London" has had a rough start in life. First, the setting of its house in order; then a series of super-abnormal seasons; and now, to cap all, the horrid anxiety inseparable from a gigantic national conflict. No one can have expected a large show. I think everyone felt that it was something to have one at all when so many others have had to be abandoned, for Lincolnshire and Presteign must now be deleted from the list I gave some weeks back in my notes. Let us hope that in the time to come we may be able to refer to 1915 as "the war year," and not have to couple 1916 with it and speak of "the war years." Two very important matters came before the committee.

Registration of Names.—I promised to report when the question was finally settled. In future no name will be registered unless accompanied by a fee of half-a-crown, and unless an official form giving certain details about the flower has been filled up. All these new additions to the list are to be marked with an asterisk.

It is impossible to forecast with any certainty what the practical outcome of this momentous change will be. Some think it will cut off the supply of names altogether; whereas others, and myself among the number, hope that it will effect the much-needed reform, and that only those varieties that are likely to be seen on the show tiers or in our gardens will be registered. This would extend the sphere of its usefulness considerably, for it would be equivalent to a kind of minor award, inasmuch as it is natural to suppose that only a raiser's best will be registered. Here again, of course, it must be remembered that one raiser's best may be another's worst. This cannot be helped; it is the price that has to be

paid for catholicity of taste. There is one very important proviso with regard to the flower that is registered which will ensure, as far as is possible, the name standing for a reality, *e.g.*, within a period of five years from the date of registration that flower must be actually shown, and a notice must be sent to the secretary of the committee to that effect.

The second subject is the division of the Leedsii, Class IV, into two divisions to correspond to the division of the "cups" into incomparabilis and Barrii. Mr. C. L. Adams, the hon. treasurer of

opportunity to reintroduce the name Engleheartii again, and I would propose it for the large-cupped varieties. One would then be Engleheartii and the other Leedsii. For the employment of the old word I would urge (1) it is an honour I would like to see paid to the Rev. G. H. Engleheart; (2) that by adopting one word we get in line with the other classes, *e.g.*, Barrii and incomparabilis; (3) that they are of such a distinct type that a new word is better than our old description Giant Leedsii. Against its adoption I can only see the possible mixing up of the old flat eyes like Incognita or Sequin with the revived name.

Trade Exhibits.—No exhibit can ever take the place of one of Engleheart's. The old associations which centre round the dead white backgrounds which our Master in Israel of late years always selected as a foil for his polished gems were on this occasion broken. It was not the war, I regret to say, that made the break necessary on his part. It was "doctor's orders," a much more serious matter for us Daffodil people to contemplate, for the ordered one is no longer in the heyday of youth, and the strain of a long day at the Hall is beginning to tell. Although for once we have been unable to express our appreciation of his efforts in a tangible way like we generally do, let me assure him that it is none the less real if it has not the visibility of a scrap of paper nor even the hieroglyphical markings that must have so often made the well-known little pocket-book such good reading when he got home.

We had no group either from Mr. A. M. Wilson, but we were more than compensated for the omission by seeing him in our midst in excellent health, and by his playing the difficult part of *backbone* to the competitive classes. The following firms put up their usual style of groups: Barr and Sons, Robert Sydenham, Limited, Christopher Bourne, Cartwright and Goodwin, Walter T. Ware, R. H. Bath, Limited, and James Carter and Co. Mr. Bard of this latter firm must appreciate a parson's difficulty in having

to put the old story in a different dress every Sunday for the same people. He has to do something akin to it in the Hall. After that wonderful orchard-like display (which, by the way, is figured in the "Daffodil Year Book" for 1914) at our last great show, and after his beautiful Crocus creations of this present season, I suppose I expected too much. It was very good, but again like us parsons, even a genius like my good friend cannot always be at his very best. The general idea was a lawn with King Alfreds in the grass, bounded by a raised border wherein were massed blocks of yellow and white Daffodils in front of close



NARCISSUS WHELP, A BEAUTIFUL SMALL-CUPPED VARIETY, SHOWN BY MR. P. D. WILLIAMS AT THE LONDON EXHIBITION.

the Midland Daffodil Society, brought the matter forward and explained the reason for the change. He found a very sympathetic committee, and the proposed change was unanimously agreed to. I presume that the final stage will be its passing the Council and the formal notification to the committee. Writing in the train on the way to Tewkesbury, where I am to act as judge, I am unable to state decidedly what I believe to be a fact, *viz.*, that there was nothing in the proposition as to the names of the two divisions. As these notes will be read before the next committee meeting, I would suggest that it might be an

growing evergreens, the whole being held in position by a low stone retaining wall.

Messrs. Barr and Sons' exhibit was a particularly fine one, well set up and rich in "good things." Had a gold medal been awarded, it would not have surprised me. Ten years ago half-a-dozen would not have been a sufficient recognition of its merits. Few probably—even Daffodil people—were aware that it helped to mark the beginning of a new era, inasmuch as only once before and on the present occasion, when the Hon. R. J. Seddon again appeared in public in the competitive classes, have we had Australasian-born blooms set up in a trade group in the ordinary way, as it were, without note or comment. Did Professor Thomas of Auckland see that lovely vase of Mrs. D. V. West from the great big island just a little nearer to the Equator than his own? I cannot say, nor, if he did, what he thought of it. However, I do know this: that two very keen gardeners indeed—one an Orchidist and the other a Montbretian—each made a list of the three or four most pleasing varieties which they would like to buy, and that Mrs. D. V. West and Bernardino were the only common factors. Mr. West, I congratulate you; and may your success stimulate other raisers in the dominions down below to send us more of their best, and our own people to grow and stage them.

Mr. C. Bourne, R. H. Bath, Robert Sydenham, Limited, Walter T. Ware, Limited, and Cartwright and Goodwin each had groups of interest. It is very evident that before we are many years older, both Walter T. Ware and R. H. Bath are going to show us some fine seedlings of their own manufacture. Their advance guard was in evidence last week.

Two Grand Flowers.—There were some excellent blooms scattered among the different competitive and trade exhibits. The two whose likenesses are given were those which were picked out by one of our leading fanciers as the two best in the show. Without entirely subscribing to that verdict, I can honestly say they were very good indeed, but I would have to bracket others with them were I to call them the best.

Alchemist, which was exhibited by Mr. A. M. Wilson, is a fine large, clear-cut, deep yellow trumpet variety. In depth of tone and smoothness of texture it has but few, if any, superiors.

Whelp, shown by Mr. P. D. Williams, is a grand small-cupped variety (Barrii) with a great expanse of white perianth, which slightly recurves, and a fluted yellow eye with a narrow edge of red. D, $3\frac{1}{4}$; S, $1\frac{1}{2} \times 1\frac{1}{4}$; C, $\frac{7}{8}$. One has seen this flower on several occasions, but never in such superb condition. See illustration on page 199.

In my next notes I hope to give a long list of from twenty to twenty-five of the most striking flowers in the Hall.

THE COLLARETTE DAHLIAS

ON all sides from those who have grown Collarettes nothing but praise is heard. It seems exaggeration to speak of these plants being in constant growth and flowering perpetually; yet such is the fact. A herbaceous border containing half a dozen clumps of Collarette Dahlias is in October, as in August, radiant with their beauty when all else except Michaelmas Daisies has faded. As a garden decorative plant this type of Dahlia surpasses all others, and is altogether most useful, being bushy in form, moderate in height and carry-

opened will last from a week to ten days in water. Of cultural details, suffice it to say that the Dahlia is most amenable to cultivation, revelling in a well drained and manured clayey loam, and it responds to every care bestowed upon it. It can be grown in many positions, and is most effective in clumps on lawns, or it flowers profusely between shrubs, while it is most useful in the herbaceous border, forming patches of colour when other perennials are over.

Of the varieties now grown, a number stand out prominently above the others. Chief among them are: Frogmore, the very best at present grown, a yellow ground splashed with vermillion,

with a yellow collarette. This leaves nothing to be desired in form and colour of flower, while the habit of the plant is vigorous, erect and bushy, producing long-stemmed flowers with a freedom without parallel. Queen Bess, an orange scarlet with yellow collarette and slightly star-shaped, flat-petalled flowers, comes second in point of freedom of flowering and artistic effect. Balmoral is a very showy and effective variety with long-stemmed flowers of bright puce colour, with a white and rose striped collarette. Princess Louise, a very distinct variety of especially dwarf habit and very free-flowering, has petals of rich glowing crimson and a white collarette. Negro, a maroon with white collarette, has a good stem and blooms very freely. Probably the best word to use for Henri Farman, a bright vermillion edged with primrose, with a straw-coloured collarette, is "grand." This variety is exceedingly showy, and should be widely known.

Of the newer varieties to be sent out this spring, some are sure to gain wide popularity. Messrs. Dobbie and Co. are offering twelve new ones, and various firms also are sending others, so there will be a wide field for choice. From notes gathered, the following six, in the writer's opinion, will surpass any yet grown: Tuskar, a deep crimson with white tips, an excellent grower, carrying an abundance of magnificently-formed blooms. Undoubtedly Prince of Orange will be adjudicated the finest of all Collarettes, very free-flowering, with flowers, as its name implies, of deep orange. The best of its colour yet seen. Skerryvore, a wonderfully

free-flowering and beautiful variety. Eddystone, a crimson with yellow tips. Pladder, a shady maroon carrying well-formed flowers with a fine stem. Inchmarnock, the nearest approach to a scarlet yet obtained, is excellent in form and colour, and a splendid grower. The foregoing descriptions are made up from notes taken on the Dahlia-beds (when the writer singled out the six from the many varieties on trial), and may not quite coincide with the raisers' descriptions given in catalogues when issued, but every variety is in advance of any at present grown, and deserves a trial.

S. W.



NARCISSUS ALCHEMIST, A FINE NEW YELLOW TRUMPET VARIETY SHOWN BY MR. A. M. WILSON IN LONDON LAST WEEK.

ing flowers on long stems well above the foliage. The huge, hideous stakes usually associated with a Dahlia-bed in early summer find no place with Collarettes, as the only support required is that afforded by their canes, which soon become completely covered by the graceful foliage, and the whole plant thus has additional merit in its artistic worth. The blossoms, too, have an increased value for floral decoration, as cut blooms last longer than those of any other Dahlia, while their long stalks and beautiful forms add to their charm and utility. From July right on till frost comes, a plentiful supply is available, and if cut freshly

NEW AND RARE PLANTS. THE BEST CLIMBING

AWARDS OF MERIT.

Odontoglossum Leviathan.—The name is suggestive of the giant proportions of this very handsome variety, whose petals are finely pointed, broad and overlapping at their bases, and, coloured dark chocolate to maroon, are irregularly reticulated with white and edged with the same colour.

Odontioda Zenobia leeana (*Odontoglossum percultum* × *Odontioda Charlesworthii*).—A small plant of this handsome bigeneric hybrid, having a two-flowered raceme, was shown. The colour is rich glossy maroon, with large, pure white lip. These were shown by W. R. Lee, Esq., Plumpton Hall, Heywood, Lancashire.

Lælio-Cattleya Nana (*L.-C. warnhamensis* × *L.-C. dominiana langleyensis*).—The sepals and petals are coloured orange scarlet, the frilled lip of rich ruby red tone suffused with velvety crimson. From Messrs. Flory and Black, Slough.

Auricula Edenside.—This distinct and pleasing variety belongs to the show fancy set. The individual flowers are large, well formed, though lacking slightly the ideal show standard of excellence. The colour is heliotrope, with lilac shading, which is in contrast to the large white centre. The variety has mealy foliage; is very vigorous, and bore a handsome truss of flowers. From Mr. James Douglas, Great Bookham.

Prunus Cerasus Chealii pendula.—A very handsome, free-flowering example of this drooping variety was shown, the pendulous branches of 3 feet or more long being studded with pink flowers. A variety of unusual merit and excellence, calculated to create new effects in the garden. From Messrs. J. Cheal and Sons, Crawley, Sussex.

Primula Reinii.—A Japanese species of dainty grace and charm which attracted considerably. Though not in the nature of a novelty, it is a plant of some rarity, and appeared at this meeting for the first time. It has petiolate, hairy leafage, which is deeply lobed when mature. The umbels rise well above the foliage, and are two to six flowered. The colour is rosy lilac, the notched flowers not unlike some of the *P. Sieboldii* set. Height, 4 inches to 6 inches. Exhibited by Mr. E. H. Jenkins, Surbiton.

Saxifraga Vandellii.—A superbly flowered example of this rare and difficult species was shown, which in a long experience we have never seen anything like so good. It is from the Southern Tyrol, and is distinct from all in its densely arranged dark green, spiny rosettes of leaves. Peduncles three to six flowered; flowers pure white, of large size. It loves calcareous soils. Shown by Messrs. R. Tucker and Son, Oxford.

Narcissus Chrysee.—A self yellow Ajax variety, rich and intense in colour, though small as trumpet Daffodils go to-day. The colour attracts, notwithstanding. From Messrs. Cartwright and Goodwin, Kidderminster.

All of the foregoing novelties were shown before the Royal Horticultural Society on the 13th inst., when the awards were made.

Some of the new Daffodils shown on this occasion, though they did not receive awards from the Narcissus and Tulip committee, were particularly interesting and good, and descriptions of several will be found in the Rev. J. Jacob's notes on page 199.

ANNUALS.

AN efficacious screen is oftentimes a most desirable thing in a garden, especially during the summer months, when many gardens are open to the public. Provided the subject receives consideration sufficiently early in the season, it is sometimes possible to make a temporary screen a floral attraction as well. That some annuals provide us with excellent material for such a purpose is amply illustrated by the Sweet Pea, which answers both purposes.

The climbing *Nasturtium* is also good, and gives plenty of flowers in a sunny position with its roots partly confined. This is easily carried out by placing a board or slates along each side of a 9-inch trench in which the plants are to be grown. A good support for the plants to climb upon is made by erecting some coarse-meshed wire-netting, or, if preferred, use the *Simplicitas* Netting, and then in either case thread it through with, or otherwise fasten securely to it, some dead Spruce or brushwood, and over this the *Nasturtium* will simply revel. Should the screen be required near the vegetable quarters or actually in them, the ornamental Bean may be more in keeping, and while making a very pretty pink and white feature, the additional use of a few gatherings of pods may be considered, although this can hardly be recommended for general practice, as the flowering must naturally suffer. Of course, the Runner Beans answer the same purpose, provided all the pods are removed as soon as formed. Personally, I prefer a few of each for the purpose.

Omitting the Runner Beans, the plants mentioned are equally useful for the covering of pergolas, trellis and such like. Other suitable climbers among annuals are *Cobæa scandens*, *Convolvulus major*, *C. Ipomœa*, *Eccremocarpus scaber*, *Humulus* (annual Hop), *Loasa aurantiaca*, and *Tropæolum canariense*. The best results are obtained by sowing the seeds of each variety in small pots under glass, and growing them on until all danger of sharp frosts has passed before planting them in their flowering or permanent positions.

When used as a covering for pergola or trellis, it is a mistake perhaps to entirely rely on the annuals to provide a good covering or show by themselves; but used in conjunction with established creepers and plants of perennial habit they certainly are capable of adding a little to the floral scheme. Care, however, should be taken that the annual does not flourish at the expense of the permanent subject by making excessive growth, and for this reason the annual Hop and the climbing *Nasturtium* need to be carefully watched when used to assist in covering any position.

Convolvulus Ipomœa rubro-cærulea delights in a sunny position, and is certainly a lovely blue creeper. *Eccremocarpus* has an orange and scarlet tone, and *Loasa* may also be said to have orange shades. Strictly, *Cobæa scandens*, with its purple, bell-shaped flowers, is a half-hardy perennial, but it answers well as a half-hardy annual if sown early in February. No doubt plants could be purchased during the next few weeks. As is well known, *Convolvulus major* (*Ipomœa purpurea*) may be procured in quite a

number of colours; and while *Tropæolum canariense* provides us with a yellow creeper, *Tropæolum lobbianum* Lilli Schmidt is a good scarlet.

Serlby Gardens, Yorks.

H. TURNER.

THE ROSE ANNUAL, 1915

ALTHOUGH rather late in appearing, this, the official organ of the National Rose Society, is an exceedingly interesting number, and will, we feel sure, be read with the greatest interest not only by the numerous members of the society, but also by many others who are interested in the Rose.

The contents are, as usual, of a very varied and practical nature. We would draw particular attention to the symposium on manuring Roses, to which Rose-experts living in various parts of the country, and growing Roses in all kinds of soil, contribute. The summary of these articles, prepared by Dr. A. H. Williams, is very useful indeed. Another interesting article is that dealing with "Municipal Rose Gardens," by Mr. W. Easlea. Rose gardens of this kind are being planted in the United States, but it is exceptional to find public Rose gardens in this country. The best we know—apart, of course, from those in the various botanical gardens—is that at Westcliff-on-Sea, two illustrations of which appear in the publication now under notice.

Mr. E. J. Holland contributes a very useful chapter on "The Prevention of Mildew on Roses Under Glass," and Mr. T. N. Cook of Boston, U.S.A., gives some interesting particulars about "Black Spot and Mildew." Rose species, which, of course, have been very much supplemented in recent years, are dealt with in a very practical manner by Mr. W. Dallimore, who draws attention to the best of the newer additions. We are also very pleased to notice the most lucid article by Mr. H. R. Darlington on "The Rugosa Roses." These Roses do not receive the attention they deserve from gardeners and amateurs generally. As will be seen by Mr. Darlington's list, there are a great many excellent Roses that belong to the Rugosa section that might be used much more extensively in our gardens than they are at present. Messrs. E. and M. Hockliffe put forward an excellent plea for the cultivation of Roses during war time, and one that we hope will not be ignored.

Those who appreciate cut Roses in the house—and we think everyone does—will derive much benefit from the very charming article by Mrs. H. R. Darlington on "How to Cut Roses." Until we read this, we must confess that we did not give very much thought to the right and wrong ways of cutting flowers. The Annual also includes a Rose analysis by Mr. Mawley, and the report of the Rose Conference held at the White City last year.

As usual, the volume is well illustrated, both with half-tone blocks and coloured plates. Two of the latter represent an arch and pergola respectively in Mr. Wettern's garden, and we wish the reproduction had been better so as to do justice to the very fine effects that he has obtained. The thanks of all rosarians are due to those who have given so much time and experience in its compilation. Copies can be obtained by non-members from the hon. secretaries, 25, Victoria Street, Westminster, London, S.W., price 2s. 6d. each, post free.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Bananas.—Very liberal treatment is required to fruit Bananas successfully. They must be planted out in a lofty structure giving them ample room to develop their large leaves. When the fruits are developing, liquid manure should be supplied frequently. A surface-dressing of rich farmyard manure will also be of valuable assistance. Plenty of heat and a moist atmosphere are necessary during the growing season, but the plants must be shaded from the direct rays of the sun. After fruiting, the old plants ought to be cut out, selecting the most promising suckers to take their places. These may be lifted with a good ball of soil and planted in a compost of loam, well-rotted manure and crushed bones. As the plants require abundance of water when in active growth, good drainage must be provided.

Cucumbers.—Fruiting plants will require constant attention to the stopping and regulating of growth. If this is neglected, they will quickly become exhausted. Cut the fruits when large enough and place the ends in water in a cool room. Preparations may now be made for planting a batch in cold frames. A hot-bed must be made on which to grow the plants, and plenty of litter placed round the frames will help to keep an equable temperature inside during spells of cold weather.

Plants Under Glass.

Freelias.—After flowering, the pots should be placed on a shelf in a cool house in order to ripen the bulbs. Keep the plants well supplied with water, supplementing this occasionally with liquid manure. When the bulbs are ripe, place the pots closely together in a cold frame to let them dry off.

Indian Azaleas.—As the plants pass out of flower, the old blooms must be removed. If repotting is necessary, it may be done now. They should then be placed in a warm, moist house to complete their growth.

Tuberous-Rooted Begonias.—Seedling Begonias must be transplanted when ready into boxes and kept moving in a warm, moist house. They will eventually require to be potted into 5-inch pots.

Gloriosa.—Where a suitable house is available, this is a most useful plant to grow, the flowers being very suitable and attractive for decorative purposes. When in active growth, the plants must be well supplied with stimulants. A few plants trained over the roof of the plant stove will supply plenty of flowers all through the summer months.

The Flower Garden.

Dahlias.—The old stools will now be throwing up young growth, and it will be an easy matter to divide them so that the most promising parts may be potted up. After potting, place them in cold frames, and keep them close for a few days till they have recovered from the check. They may then be inured to cooler conditions. The cuttings which were put in last month must be potted on when well rooted. Seedlings may be similarly treated.

Lobelia cardinalis.—If the plants have been well hardened off, those required for the herbaceous border may be put out. Those in boxes which are required for bedding out in June should be potted up singly into 4-inch pots and kept well supplied with water.

The Water Garden.—A great many subjects may now be planted in the water garden. If Nymphaeas are to be grown, they must be protected from swans. The following are suitable for associating with water: *Caltha palustris*, *Spiraeas*, *Ranunculus*, *Rumex*, *Polygonum amphibium*, *Stratiotes aloides*, *Myosotis palustris* *sempervirens*, *Butomus umbellatus*, *Funkias*, *Osmundas*, *Alisma*, *Sagittarias*, *Gunneras* and *Callas*.

The Hardy Fruit Garden.

Gooseberry Caterpillars.—These destructive pests must be watched for most assiduously, as they are capable of doing great damage in a few

days if left alone. Hand-picking is the most effective way to deal with them where time will allow. Powdered Hellebore is very effective, but owing to its poisonous nature it must be washed off the trees when its work is done. The powder should be dusted over the trees when the foliage is damp.

Mulching.—Any arrears of this work must be done without delay. It is often a difficult matter to obtain sufficient good manure for this purpose. I have used stable litter along the alleys with good effect.

The Kitchen Garden.

Potatoes.—No time ought to be lost now in planting the main crop of Potatoes. The sets should be planted in trenches about three inches deep, and the soil thoroughly worked while the operation of planting is going on. A distance of 30 inches ought to be allowed between the rows, allowing 12 inches between the sets.

Cabbages.—The season has not been favourable for the growth of most green vegetables, and while the earliest batch of Cabbages is now fit for use, the later plants are very backward. These will benefit by an application of artificial manure. Afterwards stir the soil between the plants with the hoe.

Runner Beans.—These may be sown outdoors about the end of the month or early in May, or be sown in 4-inch pots and planted out when the danger of frost is past.

Salads.—Sow Radishes in a sheltered situation every ten days or a fortnight. They require plenty of water during dry periods. Mustard and Cress must be sown according to requirements. A supply of Watercress may be obtained by planting cuttings in a frame under a north wall. It should be sprinkled with water every day.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Dwarf French Beans.—If the soil is in good order during the next few days, a start may be made outdoors by sowing a few rows of French Beans. As, however, continued rains after sowing would possibly cause the seeds to decay, only a limited quantity should be sown. For general productivity and reliability a good strain of Canadian Wonder is still the best to grow.

Seakale.—If root cuttings were placed in boxes as advised earlier, they will now be ready for putting out. Planting early will allow them a longer season to make good growth. A distance of 18 inches should be allowed between the lines.

Brussels Sprouts.—Plants which were raised early in the season and pricked out into cold frames three or four weeks ago ought now, after they have been properly hardened off, to be planted out where they are to grow. The lines should be drawn 3 feet apart, and a distance of 2 feet 6 inches allowed between the plants. After planting, a dusting of soot should be given to guard against slugs. Where wood-pigeons are troublesome, means must also be adopted to prevent their raids in the early morning, the time of day when they seem most active.

Leeks that were sown during January or February and have been hardened off are now ready for planting out. If extra fine specimens are wanted, they may be grown in trenches in a similar way to Celery; otherwise they can be planted in the open by making holes with a dibble and only allowing enough soil to fall in to cover the roots.

The Hardy Fruit Garden.

Wall Trees, such as Plums and Apricots, will be improved in shape if they receive a timely disbudding to regulate the growths. Young trees in particular can be assisted in this respect.

Mulching.—In very porous and light, sandy soils this is beneficial to established trees, also

to newly planted ones. Its benefit will be very apparent should any length of drought continue. It also encourages surface roots, which are always desirable for fruit trees, as additional food is then easily applied and quickly assimilated.

Fruit Under Glass.

Peaches and Nectarines.—While stoning is in progress in the early houses, no undue forcing must take place. If the temperature at night is maintained about 65°, this will be sufficient, allowing it to increase 10° or 15° during the day. If possible, try to avoid sudden fluctuations of temperature during this critical period.

Succession Houses.—As soon as it is certain the crop is set, a thinning should take place, as delay in this respect taxes the energy of the trees needlessly. Badly placed fruits and those on the under side of the wires must be removed first, leaving for preference the fruits which are well exposed to the sun and not in contact with wires or branches.

The Flower Garden.

Arrears of Work.—Any ground that is not already dug, and which is to be occupied later on by bedding plants, should be dealt with immediately, as it will be possible soon to make a start, planting out some of the more hardy subjects.

Hollyhocks.—These stately plants are not nearly so much grown as formerly, owing to their liability to collapse during the summer through being attacked by disease when in full flower. Raising young stock annually from very early sown seed is recommended; but owing to the shortness of the season in Northern districts, they only commence to flower when frost intervenes. Plants raised from seed sown indoors during January may now be put out where they are to flower.

Calceolarias should now be gradually hardened off in readiness for planting out next month. It is wise, however, to retain the covering materials at hand, as a sudden drop in the temperature below freezing point necessitates them being protected.

Early Flowering Chrysanthemums.—As these will soon have to be planted out, the lights must be kept off during all fine days and later removed altogether, so that the plants may become well hardened. If they are at present growing in pots, the plants could be stood outdoors altogether, with, of course, the protection of a wall or hedge. It would also be as well to have protecting material ready in case of frost.

Plants Under Glass.

Winter-Flowering Begonias.—The large and double-flowered sections are most useful additions, with their greater colour range, to the Gloire de Lorraine varieties, although they have not the same freedom of flowering. If plants were partly cut over early in March and have had a slight rest, they will by now be making young growths; these should be taken and propagated in bottom-heat. *Elatior*, *Eclipse*, *Lucy Clibran*, *Altrincham* *Pink* and *Bowdon Beauty* are among the best of this race of Begonias.

Arum Lilies.—The earliest batch will by this time be almost exhausted, and should be removed outdoors where there is the protection of a wall or hedge to screen them. Water must be withheld gradually until the foliage ripens, when it can cease altogether.

Evergreen Azaleas having passed out of flower and developing their young growths ought to be overhauled, and any that are in need of potting receive attention. The compost should be composed almost entirely of peat, with a little silver sand added. A very slightly increased size of pot will be best, as Azaleas are compact-rooting subjects. After potting, plunge the pots in ashes up to the rims and water with care. In bright weather the syringe should be used freely.

Coleus thyrsoides.—This useful winter-flowering plant can be increased by cuttings if given strong bottom-heat. After they are rooted and potted up, cooler conditions will suit their requirements.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

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Offices: 20, Tavistock Street, Covent Garden, W.C.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

SWEET WILLIAMS DYING (*Susan*).—It is probable that the Sweet Williams have been attacked by the grub of a small two-winged fly similar to that which attacks Carnations; but you only send part of the plant. Possibly spraying the plants at intervals during the autumn with paraffin emulsion would tend to prevent the fly from laying its eggs.

PLANTS FOR BEDS (*Sussex*).—It is somewhat late now to be sowing seeds for making a good display during the coming summer, and, for some of the beds at least, we think you had better resort to young plants. For scarlet there is nothing to equal *Salvia* *Pride of Zurich*, and it is free and continuous in flowering. It is 2 feet high. *Salvia patens* is intense blue, though sparsely flowered, and should be planted thickly. *Nemophila insignis* is rich blue and free-flowering. Raise from seeds. It is not more than 6 inches high. *Verbena* *Lovely Blue* makes the finest blue bed we know, and *Verbena* *Miss Willmott*, if not true scarlet, is very bright and effective. Plants of these could be had from Messrs. Keynes, Williams and Co., Salisbury. For white, a good Ten-week Stock might be used, or *Antirrhinum*, by securing plants at once. Tuberous Begonias in white and scarlet could be started in boxes now and, planted in the first week of June, would give a succession of flowers till frost arrived.

PLANTS FOR WALL (*Mrs. C. B. A.*).—You have omitted two essentials in the case, viz., the height of the wall and its aspect; hence we cannot say what plants would be the most suitable for an old red brick wall. It would also be helpful to know something of the condition of the wall; that is to say, is the mortar good or in a state of partial decay? If good, some difficulty will be experienced in starting the plants, and much subsequent attention will be required. In certain instances seed-sowing is best, but that could only be done after preparing positions for the seeds. It is an easy matter to establish plants on a dry wall or one specially built to receive vegetable life, but quite a different thing to garnish a vertical wall correctly built. Is the wall "capped," and what facilities does it offer for planting on the top? The best general season for planting is the autumn. We do not know where near London you could see a wall planted with the largest selection. Those we know have been specially built, and would help you but little. If you will give us the above particulars, we will do our best to help you. We think, however, you would be well advised to consult a specialist on the spot.

VIOLETS UNSATISFACTORY (*E. M. H.*).—If your Violets were in good condition when placed in the frame in October, we are of opinion that your non-success is owing to want of sufficient air, and probably an excess of moisture at the roots. Violets in the winter are very particular in this respect, and unless great care is taken in the removal of all decaying leaves, the Violet disease, a fungus bearing the name of *Puccinia violæ*, is very apt to make its appearance. Violets in frames should

have plenty of air whenever possible, except during hard frost. Water must be sparingly applied at the same time; enough must be given to prevent the plants from suffering. This operation should be carried out on the morning of a bright, drying day, as by so doing any superfluous moisture will be dissipated before night. It is very essential that all decaying leaves be pinched off, while the soil between the plants may be occasionally stirred in order to prevent any stagnation. During sharp frosts the frame should be covered with mats. As soon as a thaw sets in, air must be given, even before the mats are removed, as this allows of the escape of superabundant moisture. Violets are benefited by being so situated that they are shaded from the sun during the very hottest part of the day in the summer; but during January, February and March they should have all the sunshine possible.

ROCK GARDEN.

DAMAGE IN ROCK GARDEN (*Harraby*).—Probably most of the damage of which you complain is being done by the millepedes and woodlice, and not by the ants at all. Ants rarely eat plants, though they feed on sweet fruits and on nectar, but are very apt to feed on insects. They do harm by making the soil about the roots too fine and in other ways, and the best way to deal with them will be to track them to their nests and pour boiling water upon them. The millepedes and woodlice may be captured by putting half Potatoes, slightly hollowed out near their haunts, examining the traps daily and killing the captures by dropping them into hot water or into water with a thin layer of paraffin on top.

THE GREENHOUSE.

NATIVE COUNTRY AND YEAR OF INTRODUCTION OF PRIMULA MALACOIDES (*P. E. K., Lockerbie*).—*Primula malacoides* was introduced by Messrs. Bees, Limited, and was by them brought prominently forward in 1908, on November 24 of which year it was given an award of merit by the Royal Horticultural Society. It may, of course, have been introduced a year or two earlier, as some time would be necessary to work up a stock before it was sent out. It is a native of the Yunnan district of China, where it is said to grow at an altitude of 9,000 feet.

REPOTTING VALLOTA PURPUREA (*E. M. H.*).—The best time to repot *Vallota purpurea* is directly the flowers are past, and, next, towards the end of the summer, just as the new leaves and flower-spikes are on the point of being pushed up. At the same time, it is not necessary to repot the plants every year; indeed, if the roots are in good condition, they will stand for two or three years without repotting and flower all the more freely. The *Vallota* does not require much root room; in fact, a mass of soil around the roots is very detrimental to its well-doing. A large single bulb may be accommodated in a pot 5 inches in diameter, and smaller ones in proportion. Whether the small bulbs are removed and potted by themselves is just a matter of choice, as if allowed to remain they will reach flowering size and in time form a clump; whereas, if taken off and potted by themselves, their rate of progress may be somewhat faster. In order to obviate frequent repotting, the soil for the *Vallota* should be of a good lasting character, say, two-thirds loam to one-third peat or leaf-mould, and a liberal sprinkling of silver sand. Unless the leaf-mould is well decayed and free from insects, peat will be better. If you had given us an idea of the condition your plants were in, we could have been more explicit in our reply.

KITCHEN GARDEN.

TOMATOES, MELONS AND CUCUMBERS (*J. H. S.*).—You will hardly get a full measure of success in attempting to grow any two of these together, as at certain seasons different treatment is required. The best division will be as follows: Reserve the warmer portion of the house to the Melons and Cucumbers, giving each a side to themselves, setting the plants on mounds of soil on the side stages and training them to wires fixed near the glass. Both crops revel in heat and moisture in the early stages. Later, at the period of fruit setting, and at ripening more particularly, the Melon prefers drier conditions than the Cucumber, which revels in heat and moisture at all times. For securing a good set, artificial pollination is essential in the case of the Melon. In the case of the Cucumber it is not desirable, the more shapely fruits being produced without it. The Tomato requires cooler as well as more airy conditions, and with a little warmth in the pipes the ventilators should never be closed completely. A close atmospheric condition for these soon favours mildew; hence must be avoided. You might certainly carpet the surface of the Rose-beds with Violas if you wish; it is frequently done, renewing the latter annually to admit of affording the soil of the Rose-beds proper cultivation.

MISCELLANEOUS.

SOWING MISTLETOE (*California*).—Mistletoe is sown by rubbing the berries into a crack in the bark of the tree—Apple being a good host—in May or thereabouts. The berries must be ripe when they are gathered, and they are not ripe until about May. If there are no cracks in the bark of the tree, a little piece may be lifted, preferably on a branch near the main stem, and the seeds rubbed into the crack of the bark, which is allowed to close again.

CATERPILLARS FOR NAMING (*J. Fraser*).—The caterpillars are, as we thought, those of the garden swift

moth. They are very fond of various fleshy-rooted plants, such as *Pæony*, and often attack bulbs, such as *Daffodils*. All that are turned up should be destroyed, and starlings and rooks eat considerable numbers of them. The moths themselves may be captured with a butterfly net when they are fitting over the flower-beds during early summer evenings. Some good might be done by putting traps of pieces of Carrot near their haunts.

MOSS ON LAWNS (*Pons*).—The past winter has been very conducive to the growth of moss, and lawns in most places have suffered. If large patches are covered with it, it would be best to rake them bare and sow grass seed in the places, but otherwise it would be well to spread sulphate of ammonia at the rate of half an ounce to the square yard (not more) on the grass. To obtain an even distribution, the sulphate of ammonia should either be dissolved and watered on at this rate, or be mixed with fine soil or sand and distributed. Any treatment, such as mulching with manure, which will encourage the growth of the grass, will discourage the growth of the moss. One of the advertised lawn sands would also destroy the moss if used according to the directions.

MANURE FOR PLANTS (*G. Robins*).—For all the plants mentioned, organic manure of some sort is advisable, but it may be supplemented in the case of Potatoes by a mixture of 5lb. of superphosphate, 2lb. of sulphate of ammonia, and 3lb. of wood-ashes at the rate of 3oz. to the yard of row; for ordinary vegetable crops like Cabbages, &c., a top-dressing of nitrate of soda up to 4lb. to the square rod, put on in small quantities at frequent intervals; for herbaceous plants, basic slag, 12lb. to 20lb. to the square rod, should be added when the border is dug. Basic slag may also be used for Roses when the border is dug or forked into the top spit in the winter, at the same rate, with a dressing of sulphate of ammonia, 2lb. to 3lb., and superphosphate, 8lb., in the spring. Fish guano, 10lb. to 20lb., or Peruvian Guano, 4lb. to 8lb., per square rod is also a good dressing for Roses where cow or pig manure is not available. Any of the proprietary manures advertised as general plant foods in our pages would prove useful for your crops, as they contain all the necessary elements of plant food.

NAMES OFF LANTS.—*Dry Garden*.—1, Probably *Abies grandis*; 2, *A. nordmanniana*; 3, *Picea excelsa*; 4, *P. sitchensis*; 5, *Cedrus Deodara*; 6, *Picea Morinda* (*smithiana*); 7 and 8, *Sequoia gigantea*.—*W. H. S.*—1, *Cryptomeria japonica*; 2, *C. elegans*; 3, *Thuja orientalis*; 4, *Cupressus lawsoniana*; 5, *Picea excelsa*; 6, *Coronilla glauca*.—*John Clymo*.—*Rehmannia angulata*.—*Cymry*.—*Pulmonaria officinalis*.

SOCIETIES.

HYACINTHS AND TULIPS FROM INDUSTRIAL SCHOOLS.

THE first of what it is to be hoped will be very many exhibitions of a like character was held at 117, Victoria Street, Westminster, on April 8 and 9, under the auspices of the Social Union for Workers Connected with Certified Schools. Considering that the regulations respecting the exhibition were only drawn up early in December last and then passed by the Reformatories Department of the Home Office, it was a most surprising and highly creditable display; in fact, some of the best-grown Hyacinths were fully equal to those shown by professional growers. Some three dozen schools sent in entries on this occasion, and, of these, exhibits were sent by seventeen boys and twelve girls from twenty-nine schools. Prizes to something like £10 are being offered annually by H.M. Chief Inspector of these schools. Boys and girls competed separately and individually for these prizes, and each school's collective exhibits were also recognised as a whole. In a few instances the exhibitors' names were not supplied by the entrants; hence it is not possible on this, the first occasion, to supply a complete list of the competitors.

Boys.—For the best pot of Hyacinths, three bulbs in a pot, the first prize went to a boy from the East London Industrial School, the variety being *Grande Maitre*, pale blue, with three finely developed spikes; second to D. Myles of the Stranraer School, N.B., with the same variety; and the third prize to N. Kaufman of the Hayes Industrial School. For Tulips, J. Auld, from the Stranraer School, was first with Cottage Maid, six bulbs in the pot; second, F. Friedlander of the Hayes School; third, a lad from the Hardwicke Reformatory. For a window-box with Tulips only, a very highly creditable exhibit was awarded the first prize; it came from an exhibitor in the East London School.

Girls.—The best Hyacinths—none better being seen in all the exhibition—came from two girls in the St. Monica's School, Croydon, the best being a fine pot with several spikes of a white variety, and the second best an almost equally good exhibit of a yellow variety. An exhibit from the Dovecot School by Ethel Parker was commended. Of Tulips, the best came from Florence Bond of the Dovecot School, and the second best from a girl at St. Elizabeth's School, Salisbury. Highly commended awards were given to the following schools: The Stranraer School, N.B.; the Essex Industrial School, Chelmsford; the Tradwell Training School, Chester; the Hayes Industrial School, Hayes, Middlesex; St. Monica's School, Croydon; the Hardwicke Reformatory; and the East London Industrial School, Lewisham.

NATIONAL ROSE SOCIETY.

THE spring show of the society was held in the Royal Horticultural Society's Hall on the 16th inst., and from many points of view must be regarded a success. This much is stated advisedly, bearing in mind the comparative sunless weather of the weeks preceding the show and the abnormal conditions prevailing. Regarded as a whole, the classes were not keenly contested; many, indeed, were not contested at all, a solitary exhibitor only appearing. Happily, this was not the case in the great group class, which brought three of the more important exhibitors. Some of the cut-flower classes were also well contested; the flowers excellent.

NURSERYMEN'S CLASSES.

For a group of Roses in pots arranged on a space not exceeding 250 square feet, three competitors entered, the premier award being given to an admirably arranged group from Messrs. Hobbies, Limited, Dereham. Fronted by a bordering of Baby Elegance, Ellen Poulsen and Jessie, blush, rose, and crimson Polyantha sorts respectively, the exhibit was rich in weeping, standard and pillar sorts, and aglow with the finer Hybrid Teas and others. One of the more striking was the white-flowered Lemon Queen, a pillar sort of much excellence; while White Dorothy Perkins, Hiawatha and Pink Pearl (single) were all charming. Among dwarf pot plants, Old Gold, Sunburst, Geoffrey Henslow (very dark), Mrs. Andrew Carnegie, Snow Queen and the renowned Mme. Edouard Herriot were noted. The weeping kinds towered well above the rest, and afforded a fine display. Mr. Charles Turner, Slough, was second, having a border of Mrs. W. Cutbush, Orleans Rose, Ellen Poulsen and Jessie. Within this boundary such good things as Mme. Edouard Herriot, La Tosca, Richmond, Lady Hillingdon and Mme. Auguste Nonin, a pretty pink-flowered wichuriana sort, which was in great profusion, were seen among others. Messrs. Paul and Son, Cheshunt, were third in this important class, employing many well-grown, well-flowered standards in their group, though standard Roses hardly make for good effect. Of this particular style of growth were Mme. Edouard Herriot, Juliet, George Dickson (very dark), Louise C. Breslau (a fine cream-coloured sort), Arthur Goodwin and Mme. J. Dupuy, every plant affording evidence of cultural excellence. Among dwarf sorts were Mrs. F. W. Vanderbilt (salmon rose) and Viscount Carlow (cream pink). Silver Moon, a pure white single pillar sort, was very beautiful.

For a group of cut and pot Roses on a space not exceeding 100 feet, Mr. George Prince, Oxford, who arranged a half-circular group, was the only exhibitor, receiving the first prize for a nice lot. His best examples—Old Gold, Snow Queen, Mme. Edouard Herriot (very rich and beautiful in colour) and Mrs. Herbert Stevens (a superb white)—were all shown in big stands, and gave a fine display. Tea Rambler, Shower of Gold, Moplight, Mme. A. Nonin (pink-flowered wichuriana) and Hiawatha were other good ones in the group.

For a group of pot and cut Roses on a staging space 20 feet by 3 feet, Messrs. B. R. Cant and Sons, Old Rose Gardens, Colchester, were the only exhibitors, securing the first prize for an admirable lot. Employing imposing stands and vases for the most part, the firm displayed such as Antoine Rivoire, Mme. Melanie Soupert, Lady Pirrie, Silver Moon (a fine single white), Autumn Tints, Hugh Dickson, Hon. Mrs. R. C. Grosvenor and Mme. Edouard Herriot to advantage.

For six pillar Roses in pots, Messrs. Hobbies, Limited, Dereham, were alone, having Baby Elegance (blush), Excelsa, Pemberton's White Rambler (very good), American Pillar, Arcadia (crimson) and Lady Blanche (a pretty double white). The same exhibitors were alone in the class for six weeping standards, and were again awarded first prize, showing similar varieties to those named above.

In the class for fifty Polyantha Roses in pots, to be staged on the floor, two exhibitors came forward, the first prize being given to Mr. C. Turner, Slough; second, Messrs. Hobbies, Limited, Dereham. In the former, Ellen Poulsen, Jessie, Mrs. Cutbush, Orleans and Katherine Zeimet (white) were shown. In the latter, Amory Forceau (blush, double) and Annie Muller (rose, semi-double) were the more conspicuous.

In the cut bloom class, thirty-six blooms in not fewer than twenty-four varieties, there were three competitors, Messrs. B. R. Cant, Old Rose Gardens, Colchester, taking the lead, having a superb flower of Mrs. Edward Mawley (which gained the silver medal) and excellent examples of Lyon, Mme. Melanie Soupert, Souvenir de Pierre Notting (fine yellow), Captain Cant, Dean Hole, Richmond, Hon. Mrs. R. C. Grosvenor (blush), Hugh Dickson, Antoine Rivoire and William Shean. Second, Messrs. G. and W. H. Burch, Peterborough, who had very good Yvonne Vacherot

(blush), Edward Mawley (red), W. Shean, Prince de Bulgarie and Frau Karl Druschki. Messrs. F. Cant and Co. were third with less weighty blooms, though The Bride, Mme. Charles Lutaud, Avoca, Juliet and Mrs. Fred Straker were nice examples.

For eighteen cut blooms, not fewer than twelve varieties, there were again three contestants, Messrs. A. Dickson and Sons, Newtownards, being in the place of honour with a high-class lot of flowers. Sunburst, Souvenir de E. Guillard, St. Helena, Lady Plymouth, Mrs. Foley Hobbs, Lady Greenall (of a lovely saffron orange) and Lady Barham (coral pink) were among the best. Second, Mr. Elisha J. Hicks, Twyford, who had excellent blooms of White Killarney, Hugh Dickson (dark red), Edward Mawley, Mabel Drew (cream), Mrs. Charles Reed (blush) and Marian Grace Wells (rose). Third, Mr. G. Prince, Oxford, whose White Maman Cocot, White Killarney and Frau Karl Druschki were all good.

For six pots of new Roses, Messrs. Paul and Son, Cheshunt, were the only exhibitors. The best varieties were Edgar M. Burnett (a small La France), Leonie Lambert (blush pink) and Dr. G. Kruger (reddish), the

for Mrs. Charles Reed, Mme. Edouard Herriot and Mrs. George Roupell, the last of cream and light orange, and very charming.

For a collection of Roses cut or in pots, the last-named exhibitor was again alone, being awarded first prize for a group which included Princess M. Mertchersky (peach colour), Juliet, Liberty, British Queen, Prince de Bulgarie and Mrs. T. Webber, all in good form.

For six distinct new Roses, one stem of each, two competitors appeared, Messrs. A. Dickson, Newtownards, being awarded first for Souvenir de E. Guillard, Killarney Brilliant, Mrs. Forde, Primrose and others; second, Mr. E. J. Hicks.

AMATEURS' CLASSES.

CUT BLOOMS IN EXHIBITION BOXES.

For twelve blooms, not fewer than six varieties, Mr. E. J. Holland, Sutton, was alone, and was awarded first prize, showing Melanie Soupert, Cleopatra, Cynthia Forde, Dean Hole, St. Helena and Mme. Jules Gravereaux.

The above-named exhibitor was first for six blooms of any one variety, showing a glorious set of William Shean, a lovely pink variety and splendid grower, but lacking fragrance. This variety also gained the silver medal. Second, Dr. C. Lamplough, Alverstoke, who staged Mme. Jules Gravereaux.

Mr. E. J. Holland was the only exhibitor in the basket class for one basket of one variety, staging excellent Melanie Soupert, and for one basket, any number of varieties, gaining the first prize in each.

LADIES' SECTION.

For a vase of cut Roses lightly arranged, there were three competitors. Mrs. F. A. Tisdall, Woodford Green, was first; second, Mrs. Courtney Page, Ridgway, Enfield, both having excellent Kaiserin Augusta Victoria. Mrs. Chaffey Giddins, Barnet, was third with My Maryland.

For a decoration of cut Roses for a dinner-table, six competitors entered, most of the arrangements being good. First, Mrs. Courtney Page, Ridgway, Enfield, who set up an imposing lot of Ophelia (cream and pale pink) with light trails of Asparagus Fern. We thought the main central vase too formal-looking. Second, Mrs. Brown, Brokes Lodge, Reigate, who had a superb lot of Richmond with the lightest touches of Jessie and Asparagus Fern; third, Mrs. F. A. Tisdall, Woodford Green, whose arrangement was the most delightful of all. At judging-time this lot was insufficiently open; at 2 p.m. it was glorious. Two exhibitors used the famous Mme. Edouard Herriot, but the flowers were somewhat coarse-looking and lacking colour.

NON-COMPETITIVE CLASSES.

Messrs. Piper, Bayswater and Barnes, were the only exhibitors here, and arranged a highly artistic lot of flowers in baskets, vases and on stands. Liberty, Mme. Abel Chatenay, Mme. Edouard Herriot, Kaiserin Augusta Victoria, Sunburst, Lady Hillingdon, White Queen, Richmond and Molly Sharman Crawford were some of the more beautiful in a glorious lot of flowers.

NEW VARIETIES.

Two new varieties received the high award of the society's gold medal. The most interesting of these was

Hoosier Beauty.—A glorious scarlet crimson bloom of great fullness and substance of petal, with long, stout stems. The shape is semi-conical, and the petals are slightly reflexed, as we see them in Miss Cynthia Forde. Its outstanding feature, however, was the delicious perfume. This was exceptionally pronounced. We understand this superb novelty was raised in America, and is a seedling of that grand maroon crimson Rose Chateau de Clos Vougeot. Shown by Messrs. G. Beckwith and Son. The other gold medal variety was named

Queen of the Belgians.—This is a large, single pink flower, with a prominent central disc of yellow stamens. The petals are broad and shell-like, and the flowers are produced singly on long, slender stems. The raiser and exhibitor, Mr. E. J. Hicks, claims that it is perpetual flowering. It should prove very useful for table decoration.

A new variety that received a certificate of merit was named

Mary Greet.—This came from Messrs. Alex. Dickson and Sons, Newtownards. It is a large, full flower of conical shape, borne on very long and stout stems. It reminds us somewhat of Pernet-Ducher's Entente Cordiale when at its best.

BEST BLOOMS.

The best blooms in the show, for which the society's silver medal is given, were: In the nurserymen's section, a magnificent flower of Mrs. Edward Mawley, shown by Messrs. B. R. Cant and Sons; in the amateurs' section, Mr. E. J. Holland secured the honour with a really wonderful flower of William Shean.



THE NEW ROSE HOOSIER BEAUTY. THIS RECEIVED A GOLD MEDAL LAST WEEK. (See accompanying text).

latter having but one flower. The first prize was awarded.

The class for twelve Maréchal Niel blooms brought but one exhibitor, Mr. A. T. Goodwin, Rose Holm, Maidstone, who staging a superb dozen, took the first prize. The blooms were handsome in size and finely coloured.

For twelve blooms of any variety other than Maréchal Niel, three competitors entered, Messrs. A. Dickson and Sons, Newtownards, being first with J. Campbell Hall, a handsome pink and blush; second, Messrs. G. and W. H. Burch, who staged Mrs. Foley Hobbs (deep crimson); third, Mr. E. J. Hicks, who had excellent examples of Mrs. George Norwood (of rosy pink hue).

For six distinct varieties in vases, not more than five stems of each, only two competitors entered, Mr. E. J. Hicks being first with Princess Mary (a glorious single crimson), Mrs. Charles Reed, Mme. Edouard Herriot, Harry Kirk and Marquise de Hautpoul (rosy peach); second, Messrs. G. and W. H. Burch, Peterborough.

For three baskets of cut Roses, distinct, Mr. E. J. Hicks was the only exhibitor, being awarded first prize

THE GARDEN.

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NOTES OF THE WEEK.

A Choice Dwarf Rhododendron.—Some excellent plants of the dainty little blue-flowered *Rhododendron intricatum* are now flowering well at Kew, both in the rock garden and among the Heath collection near King William's Temple. The bushes are scarcely more than a foot high, the small, lilac blue flowers being freely produced in clusters of four or more. A native of Western China, this dwarf shrub is likely to prove one of the most useful of the many introductions that have reached us from that country during the last decade.

A Charming Narcissus for the Rock Garden.—Among the *Narcissi* that are suitable for the rock garden, *N. triandrus pulchellus* occupies a foremost place. The graceful flowers are produced three or four on each scape; the perianth is primrose and the cup white. It prefers a little shade in gritty soil, and a well-drained, sheltered position, when it will last in bloom for some time. With a carpet of *Viola gracilis* the effect is most attractive.

A Pleasing Spring Flower-Bed.—Whatever position *Anemone fulgens* is planted in is made conspicuous, providing the *Anemone* succeeds at all. A bed filled with it, intermixed with double *Arabis*, makes a very effective contrast, and one that can be seen from a good distance. The *Arabis* was planted in the autumn, when pieces were dibbled into the bed, and at the present time it is one of the most conspicuous beds in the garden. When it has ceased flowering, the *Arabis* will be pulled up and the bed then filled with its summer occupants.

A New and Rare Flowering Shrub. The illustration on this page represents a flowering spray of a new and as yet rare hardy shrub or small tree from China. This is named *Styrax hemsleyana*, and in appearance resembles *S. Obassia*, itself a rather rare shrub. The flowers illustrated are pure white, the racemes being about six inches long. In its native country this *Styrax* makes a small tree about twenty feet high. It should be planted, when quite small, in a mixture of peat and leaf-soil, combined with the ordinary soil of the garden. It is a very beautiful shrub, and will doubtless be extensively grown when plants are more easily available.

A Charming Spring Effect.—We were very interested in a simple scheme of white and

blue that we saw in a Southern garden a few days ago. Some sturdy bushes of the white-flowered *Magnolia stellata* had been planted near the front of a large shrub border, and beneath these the ground was lightly carpeted with the bulbous plant *Muscari Heavenly Blue*. The effect, particularly when kissed by the spring sunshine, was exceptionally pleasing, and should be noted for reference when the planting season, *i.e.*, October or November, comes round. Both shrubs and bulbs will thrive in well-drained soil of a moderately light character.

Treatment of Bouvardias.—Plants which have finished flowering may be cut well back and placed in gentle heat, and, when the young shoots appear, the plants may be shaken out of the old soil and repotted in a compost of turfy loam and leaf-soil. Place them in a temperature of 60° until the pots are well filled with roots, after which a lower temperature will suit them better. *Bouvardias* may easily be increased by cuttings, which should be taken as near the old wood as possible. Fine sifted loam and leaf-soil, with plenty of rough sand, will suit them well. Plunge the pots in gentle bottom-heat in a close pit.

Crown Imperials.—These are among the boldest and showiest of bulbous flowering plants, with their hanging cups of yellow, gold, red, or orange. For growing in the shrubbery in large groups they have few equals at this season, as they give a bold relief to their surroundings. To avoid a blank space afterwards, *Anemone japonica* should be grown with them. There are variegated forms, both golden and silver, and, happily, they belong to the red-flowered section, a fact which renders them the more conspicuous. The golden-leaved form is now one of the most ornamental in the hardy plant garden, and those who do not possess it should procure it early in the ensuing autumn.

A Pink and Blue Combination.—A rather daring combination of colours may be seen at Kew just now. Close by the Victoria Gate a large bed of the double-flowered Peach, *Prunus persica carnea plena*, is in full flower, the shrubs attaining a height of from 10 feet to 15 feet. The colour of the blossoms is a deep shade of pink, and attracts the attention of numerous

visitors. The ground beneath is carpeted with the Apennine Windflower, *Anemone apennina*, the blossoms of which are a pleasing shade of sky blue. The combination of pink and blue is good, though whether it would be so pleasing were the Peach flowers nearer the earth, and consequently closer to the blue, is doubtful. Lilac-coloured and pale pink flowers we know always make a charming association. For instance, nothing is more pleasing than *Nepeta Mussinii* planted with pink China Roses, but one would not care to carry the depth of either colour too far.



A FLOWERING SPRAY OF *STYRAX HEMSLEYANA*, A NEW AND RARE SHRUB FROM CHINA.

Thinning Herbaceous Plants.—Now that such plants as *Phloxes*, *Michaelmas Daisies* and *Heleniums* have shoots several inches high, we would remind readers of the desirability of removing the weakest of these. Three, four or five good sturdy growths to a plant are ample, and the clearing away of the remainder at this early stage will be amply repaid at flowering-time, inasmuch as the blossoms will be larger, of better colour and greater substance. Of course, where the plants are lifted annually or biennially, and only the strongest outside portions replanted, there is little necessity for any thinning at the present time.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Magnolia stellata.—Despite the experience of Magnolias as detailed by your correspondent "G. G." on page 183, he does not appear to have made the acquaintance of *Magnolia stellata*. A specimen of this species that formed a large tree as stated in the note in question would be something to write about. I note, however, that it is referred to in the past tense, so conclude it no longer exists. This is a pity, for we shall probably never see its like again. Besides this, a tree of *Magnolia grandiflora* like an Oak would be a decided novelty.—A SCEPTIC.

Berberis pinnata.—The tall Barberry about which Mr. Comfort writes on page 194, issue April 24, is not *B. Aquifolium* (Mahonia), but *B. pinnata*, closely akin to the other and not distinguishable from that species in a young state. Mr. Bean, in his recent admirable book on "Trees and Shrubs" says that some authorities reckon these to be varieties of a single species; but the habit of the two is very different in well-grown specimens. *B. Aquifolium* never becomes anything but a dense spreading shrub some 4 feet high, whereas *B. pinnata* does not spread by suckers, but rises with strong arborescent stems to a height of from 12 feet to 16 feet. It is a beautiful thing at the present season.—HERBERT MAXWELL, *Monreith*.

The Clivia as a Window Plant.—What a fine, noble-looking window plant the *Clivia* makes! Yet how seldom is it seen so grown. In a house not far from where I write are two large, healthy-looking specimens just throwing up their flower-spikes. I see them every day, and they appear to inhabit the same windows the whole year round, thus proving how amenable they are to that kind of treatment and position. The showy flowers—shades of orange red—are borne on stout stems and generally stand well out of the foliage, which is strap-shaped and somewhat of a thick, leathery nature. In a cut state the flowers keep good in cool surroundings for practically a fortnight. A suitable growing compost is loam, old decayed manure and sand. It is a good practice to keep *Clivias* on the dry side for a little while after flowering; it rests them. Another name for them is *Imantophyllums*.—C. T., *Highgate*.

The Cultivation of *Lupinus polyphyllus*.—My experiences in attempting to raise *Lupinus polyphyllus* from seed seem to me to be of enough general interest to relate to readers of THE GARDEN. For three summers I sowed seeds, which germinated well, but the seedlings soon became yellow and died after forming a few small leaves. On discussing the matter with a friend, it was suggested that perhaps the necessary bacteroid was wanting in the soil. Acting on this suggestion, I obtained some soil from a garden in which *L. polyphyllus* would grow. With this I top-dressed the seed-boxes, and the yellow, sickly seedlings soon began to grow strongly. When they were large enough, I pricked them out into a nursery bed and top-dressed them again with the foreign soil. By the autumn, when the young plants were dug up to be transplanted in their permanent quarters, they had made roots several feet long, with the typical nodules. No foreign soil was used in the permanent quarters, and the plants are now throwing up strong young shoots, so I am hoping this year to obtain flowers from them. An inter-

esting point in connection with other species of *Lupinus* is that no difficulty was experienced in growing *L. arboreus* from seed in the soil which would not grow *L. polyphyllus*. This fact seems to suggest that different species of bacteria are needed by *L. polyphyllus* and *L. arboreus* respectively.—GARDEN STEWARD.

Two Showy New Barberries.—Among the many new Barberries received from China during late years, there are several which promise to become very useful shrubs, for they have a pleasing habit and bear bright-coloured fruits freely late in the year. Two of these species which possess special attractions are *Berberis stapfiana* and *B. subcaulialata*. They bear some resemblance to *B. Wilsonæ*, the first of the new Chinese species to force its merits upon garden lovers. *B. stapfiana* is a vigorous shrub with gracefully arching branches, the young bark of which is red. At the base of each bud are three strong, sharp, needle-like spines, the larger ones being about three-quarters of an inch long. The tiny leaves are one-third to two-thirds of an inch long and one-twelfth to one-eighth of an inch wide, green above and glaucous below. Yellow flowers are borne in June in small clusters from each bud on the previous year's wood, and they are followed by bright red fruits, which ripen in October. The second species, *B. subcaulialata*, is also of graceful outline. It is distinguished from the former by its less ferocious spines, by its leaves having a rounded instead of a pointed apex, and by its fruits being red and cream in colour. In both cases the fruits are rather late in ripening, and are at their best during November and December. Both kinds succeed in ordinary garden soil, are apparently perfectly hardy, and are easily grown from seeds, which should be sown as soon as they are ripe.—W. D.

War on Wasps.—Allow me a little of your valuable space to remind readers of the vast importance of waging war on wasps this year. All foodstuffs will be dear, and I do not think any people can afford to let their fruit crops be spoilt through lack of a little attention and trouble. Moreover, it is not only one's self that one must think of, for all your readers may not have orchards and fruit trees in their possession; one must think of other people a little. Of course, the war on wasps when once begun should be continued, if necessary, all the summer, and any nests found later on should be destroyed by inserting a rag soaked in turpentine at each entrance hole and covering it up with turf; but a method which will effectually prevent there being anything like a number of nests is for every reader to make an effort to trap the queen wasps. The best way to do this is to hang up bottles with wide necks, or jars, filled from a third to half of their depth with strong-smelling liquids, such as beer, stout, or beer and sugar. These bottles should be hung up on trees, evergreens, and in any place which may be suitable for the queen wasps to hover about, and should not be placed so that they are covered from sight by foliage. Of course, this method is very unsightly, and often involves considerable labour and trouble (not to speak of injuring the gardener's reputation as a temperance man if he must buy beer or stout at the shops!); but it is surely well worth it. Wasps do such a terrible lot of damage to fruit that severe war is really necessary against them. These receptacles may remain for catching ordinary wasps in the summer, and should be refilled periodically.—E. T. ELLIS, *Weetwood, Ecclesall, Sheffield*.

Quality in Vegetables versus Size.—"A. La T.," on page 183, issue April 17, touches the spot—a very sore one—between the cook and the gardener. The "battle of the Broad Bean" in particular I have fought annually for forty years. Most of us will agree with "A. La T." that the Broad Bean is only fit for table when quite young and small. The gardener hates to gather it before it has grown coarse and large and is only fit for pigs. Carrots, too, can scarcely be too small and tender for a table delicacy. But the gardener seems to think we are donkeys, and offers us large, inferior exhibition ones, often not worth cooking. The same trouble constantly occurs in the case of Beetroot, Onions (for boiling), Vegetable Marrows, Cabbage and, in fact, most vegetables. I combat the difficulty as far as I can by carefully avoiding all exhibition kinds when ordering seeds. I suggest that it would be very interesting and instructive, and an eye-opener to the (often wilfully) blind seedsmen and gardeners, if at the vegetable shows a committee of good housekeepers and cooks were appointed as judges.—ANNE AMATEUR.

—This subject having caught my eye on page 183 of your valuable paper, I naturally read carefully "A. La T.'s" remarks, and, on second thoughts, I was inclined to think she could hardly be serious. Fancy one having to eat Broad Beans as large as kidneys, Brussels Sprouts as large as Walnuts, Salsify, one stick of which is enough for a helping; and Cauliflower which no woman could tackle alone! Really, Mr. Editor, this would be enough to make one ill. Surely, one who can afford to use Broad Beans when not larger than Marrowfat Peas should be in a position to be able to make her own selection from a reliable seedsmen's catalogue rather than trust to a collection. "A. La T." has a perfect right to grow what varieties she chooses, and to pick or waste them at her own discretion; but what about the toiling masses and the thousands of our population, many of them in a fairly good position, but with large families, who are only too thankful to our seedsmen and others for the improved varieties in the majority of kinds of vegetables? Our present-day judges and best exhibitors never favour mere size; quality being the first and most important consideration. I have just taken up one of our leading seedsmen's catalogues with the object of proving whether "A. La T.'s" remarks that the smaller and more refined-looking vegetables are now only mentioned in small print, and seldom, if ever, sent out in the guinea or other collections, are correct. Now, I find that the large majority of kinds of vegetables are fairly representative, both the large and smaller growing kinds, and there are many cases where the latter are strongly recommended in large print. I will name a few: Peas, French Beans, Beetroot, Brussels Sprouts, Cabbage, Savoy, Cauliflowers, Carrots, Celery, Cucumbers, Lettuce, Vegetable Marrows, Onions, Radishes, Tomatoes, Turnips and Potatoes. Surely enough for "A. La T." to practise with for a year.—EDWIN BECKETT.

—"A. La T." seems in a very great deal of trouble about vegetables. I do not know whether it is a man or woman who is writing, but the first part gives one the impression that your correspondent is a member of the gentler sex. We know on a great many tables small vegetables are more appreciated than large ones. One only needs experience and a glance at all the leading catalogues to find plenty of varieties that are small.

The great difficulty seems to many to grow things good enough to be called anything but small. If "A. La T." had to supply a household of always twenty persons, and often more, with enough vegetables for thirteen hot meals a week, large vegetables would not be such a grievance; and when one gets used to the splendid varieties that grow so large, it would take a long time to go back to small things that are often strong and stringy. My experience is this: that excepting a very few things that are really needed small, vegetables have made very rapid strides in quality during the last twenty years.—G. ANDREWS.

Undesirable Plants for the Rock Garden.—

Like Mr. E. T. Ellis, I had no intention of writing another letter on this subject, but as he asks me if I have grown "Arabis albidula fl.-pl. as an alpine for a few years together," I should like to say that the only use I have for it is as a vegetable doormat. It is evident Mr. Ellis and I have different ideas on alpine gardens. Who would grow Vincas, &c., mentioned by him as alpine, to the certain destruction of choicer plants? I do not remember having seen Mr. Ellis' favourites growing in the alpine gardens at Wisley, Kew or Friar Park. *A fortiori*, no true lover of alpine would attempt them in a small garden, even under a "slight drip." Has Mr. Ellis yet tried another "alpine," by name *Campanula rapunculoides*? If not, let him plant it without delay. Drip or no drip, I think it will overtake *Cerastium* or double *Arabis* before long, even with the start they have. Why will people grow these out-of-bound customers when they can get more interesting plants like *Androsaces*, *Saxifragas*, &c.?—A.

How to Grow Anemone fulgens.—

Some two or three years since I think there was some correspondence in your columns as to how to grow this plant. May I relate my experience of it? In a desultory way I have grown a plant or two of it, and, noticing they flowered well every spring, I indulged in a hundred last autumn. I planted them in very sandy soil with a little leaf-soil, protected from the north and east by some tall Hollies and Rhododendrons. Early in February they began to throw up their foliage, and about March 1st a few were in bloom. They have flowered profusely through March and into the last week of April, each plant producing about a dozen flowers. There is nothing I know of which is so brilliant on a sunny day in spring as *Anemone fulgens*, and it is especially valuable as it flowers in a month when our gardens are none too gay. Besides, it is cheap, and I find it easy. I do not trouble to lift it.—ALPINIST.

Rock Gardening and its Votaries.—I always read with pleasure "Anne Amateur's" contributions to THE GARDEN—they are so fresh and humorous; but I feel I must protest against

her note in the issue for April 17, which I do not think is justified by what has appeared in your columns. It is much to be regretted for her own sake that with an abundance of sandstone, the possession of which I envy, she does not start the cultivation of rock plants. But I think if she pursues her theory a little further, to eschew exotics, her garden will not be better than—what I admit is very beautiful—the hedge banks of a deep country lane. Her pathetic reminiscence of the Parsley Fern is, I cannot help thinking, a reflection on the lady who looked after it, and it brought to mind those hackneyed lines, "Oh! ever thus from childhood's hour." But I should very much



NEW ROSE QUEEN OF THE BELGIANS. THIS HAS PINK FLOWERS AND RECEIVED A GOLD MEDAL IN LONDON ON THE 16TH ULT.

like to know the further history of her "hedge of sorts." I read her invitation for suggestions and advice and how it was responded to, and I much wondered whether she had adopted the planting of so many exotics in her hedge, which when it grows up against her neighbour's fence will prove very interesting and toothsome to her neighbour's cow, horse or donkey.—E. B.

FORTHCOMING EVENT.

May 11.—Royal Horticultural Society's Exhibition and Meeting, 1 p.m. to 6 p.m. Lecture at 3 p.m. Royal Horticultural Hall, Vincent Square, Westminster.

SEASONABLE NOTES ON AURICULAS.

WITH the arrival of May the Auriculas will be getting past their best, the early flowering varieties being already out of bloom. The beginner should bear in mind that the stems must not be removed, as is the case in the majority of plants, the flowers being pinched off at the top of the truss, and the stem or flower-stalk allowed to gradually dry up, when it can be removed later on.

Repotting.—The most important work for May is repotting the plants, and I always endeavour to complete this task before the end of the month. Those that have passed the flowering stage are first taken in hand. The compost consists of good fibrous loam three parts, and leaf-mould one part, to which may be added a moderate sprinkling of silver sand or crushed oyster-shell. A 6-inch potful to every bushel of the soil will suffice. In some districts the loam is poor in quality, and the deficiency can be made up by adding a little decayed manure, such as may be secured from an old hot-bed. I have occasionally used a little bone-meal, and with very good results; but the amateur should not be too generous with it. As a general guide I advise not more than a 4-inch potful to each bushel of the rooting medium.

How the Repotting is Done.

I must state first of all that large pots are not necessary, and many can often trace their failure to overpotting. For full-grown examples, pots of the long thumb pattern measuring 4 inches in diameter will be large enough, with perhaps a slightly larger pot for an exceptionally strong plant. Smaller specimens should be placed in receptacles just large enough to take the roots. Ample drainage must be provided, and to this end each pot should have one-third of its depth filled with broken potsherds. Both crocks and pots ought to be clean, and if

they have been previously used for Auriculas, a good scrubbing will be necessary to remove all traces of the woolly aphid.

Having prepared the compost and the pots, one can then proceed to overhaul the plants. All the old drainage should be removed and the greater part of the soil, but I never adopt the method of shaking all the soil from the roots. Sufficient must, however, be taken away so that the bottom of the stem can be examined. If the end is decayed, it should be cut back to living tissue and then rubbed over with a little lime or powdered charcoal. In some instances the stem will be in an excellent state of preservation, and in consequence will be too long to allow the foliage to be brought near the

soil. When I have such examples to deal with, I never hesitate to shorten the stem to bring about the desired result; but the beginner should remember that no harm will accrue if the base of the stem rests upon the drainage. In all probability the roots will be covered with woolly aphis, and before disturbing the ball of soil beyond removing the drainage, I usually go over the roots with Tobacco powder or apply a little methylated spirit with a camel-hair brush. Press the soil fairly firm and leave sufficient space for watering, and when the operation is completed the leaves will be near the soil, the plants thus presenting a smart appearance.

Subsequent Treatment.—Arrange the plants in their growing quarters and give a thorough watering. For the present keep them shaded from all strong sunlight, and only give enough water to keep the foliage from drooping. In the

the Rose pillars harmonise with the general scheme of colour, we do not see why they should be omitted. There is a tendency, however, in a few gardens to overdo them. That and the use of unsuitable varieties are dangers to be guarded against.

THE SCOTCH ROSES IN BEDS.

THERE has been within recent years a perceptible increase in the attention devoted to the Scotch Roses, forms of *Rosa spinosissima*, which were at one time exceedingly popular. The greater number of the eighty or more varieties cultivated in the thirties of the nineteenth century are now lost—at least so far as regards their names—but there are many of these to be

for association with others. In themselves the small flowers of the Scotch Roses are extremely pretty. Few of them are of stiff formation, and many are of the most elegant contour and delightful in every way, though too small to please those who worship size in flowers.

The beds may either be, as has been said, composed of one variety alone—and for this purpose one of the double yellows makes a beautiful group—or they may be composed of varieties of different colours, either mixed or in blocks of each variety. One advantage offered by these Roses is that they are generally offered on their own roots, as they produce suckers freely and also strike readily from cuttings. Their habit of making suckers is, indeed one of the obstacles to their more general employment in gardens. In beds they should be carefully attended to and the suckers either removed, or, better still, periodical replanting performed.

The Scotch Roses are not difficult to satisfy in the way of soil. They will grow and flower in poor soil, but they well repay more generous treatment, and the culture adopted for other Roses, which need not now be detailed here, is eminently adapted to give larger and more lasting flowers. The plants are easily kept to the height required by annual pruning, while they never fail to give an abundance of bloom.

The old Double Yellow is one of the most plentiful, and it is a pleasure to observe it so freely grown in many cottage gardens, where it flowers most profusely year after year. The Double White is also excellent, though not so common as the yellow. One called Staffa is also double, but its flowers are of what we know as "French white." Lismore is another good double variety, the flowers being nearly pure white, but just tinged with blush sufficiently to take away the purity without reducing the beauty of the flower. There is a good double pink one named Townsend, but there are other pink varieties, one of the best of these passing, generally, simply as the Scotch Double Pink. Falkland, an old variety, has pale rose flowers, passing off nearly white; it is a capital flower. The old double rose variety called Grahamstown has had a long career and is a favourite with growers of the Scotch

Roses. Berwick, another very old variety, is semi-double and is pretty with its deep rose flowers, which are touched with white along the edges. William III., a dwarf variety, makes a charming bed by itself, and is very useful for edging other varieties. It has small, double crimson flowers and is only a few inches high. Stanwell Perpetual has semi-double, light blush flowers and has the merit of being a good autumnal Scotch Rose, in addition to flowering well early in the season. Globe has rose flowers; Lady Hamilton has buff white, rose-shaded buds. It opens semi-double and is then rosy blush. Dundee is double and rose with a white reverse. Other double or semi-double varieties might be mentioned, but any will give satisfaction. Some of the singles appeal to many. Of these the Single White; ochroleuca, golden yellow; and the Single Yellow may be referred to by name.

Dumfries.

S. ARNOTT.



A BORDER OF MIXED FLOWERS WITH ROSE PILLAR IN THE BACKGROUND.

next article I shall give a few more details in this direction.

T. W. B.

ROSE PILLARS IN FLOWER BORDERS.

SOME years ago, when a few gardeners more daring than their fellows introduced pillars of Roses to the herbaceous or mixed flower border, they were subjected to criticism that was not always exactly courteous. That they were more far-seeing than their critics gave them credit for has been proved subsequently, and in most well-ordered gardens these pillar Roses are now given a place in the flower borders. In these days of gardening for effect, nine borders out of ten are filled with many kinds of plants, some shrubby, some of annual duration only, and others that are only half-hardy, but planted there to fill the hiatus that would otherwise occur at some time during the summer or autumn. Therefore, so long as

met with in gardens where all record of the names has disappeared. At present it is difficult to secure more than a dozen named Scotch Roses from any individual nursery. There are enough, however, to make pretty hedges in the garden, while these Roses form one of the daintiest of all Rose beds, either one variety alone or several intermingled. Their flowers are not too lasting, it is true, and the display of bloom is shorter than that given by some other classes of the Queen of Flowers, but they are exceedingly pretty while in bloom, and, even when the flowers are over, the foliage is frequently beautifully tinted. A bed of Scotch Roses on the grass gives wonderfully charming effects.

One good feature of these Roses is that whatever varieties are planted together, there is no jarring colour effect. The hues seem to agree in every way, and there is not among them the hardness of colouring which renders some Roses unsuitable

DAFFODIL NOTES.

BY THE REV. JOSEPH JACOB.

The London Show (Continued).—I am afraid there were a good many grumblings about the accommodation provided for two of the three blue ribbon classes of the exhibition in the dark eastern annexe. If in trying to carry out the old maxim of when in Rome doing as Rome does I, too, allowed a slight growl to escape my lips, I humbly apologise to the Royal Horticultural Society of England, and I hereby ask all fellow-grumblers to do the same, more especially in the light of future events. We were wrong, very wrong. It was their solicitous care that had prompted them with wonderful prescience (or was it upon a secret hint from the War Office?) to guard the choicest flowers of the show from all possibility of being seen by any prying Taubes or Zeppelins, for it is quite obvious that such beautiful examples of "Kultur" would act upon German nerves like a red rag does on a bull. One hopes that equal thoughtfulness will be shown next year if the war is still with us. Alas! it may be.

Competitive Classes.—The number of entries was not as many as usual, but there were some excellent blooms to be found. I consider the twelve blooms staged by Mr. P. D. Williams in the silver-gilt cup class for seedlings raised by the exhibitor were as good a lot as I have ever seen. Quality and variety were its outstanding merits. The grand bloom of Whelp was a magnificent example of good culture, while an exquisite white trumpet, quite in the style of the still unbeaten White Knight; a fine shapely yellow one featuring Alchemist, which was illustrated in THE GARDEN last week; and a round, white-petalled, large, flat, red-eyed bloom, a little like a smooth Cossack, were superb.

I was very glad indeed to see Messrs. Barr and Sons' exhibit in the Engleheart Cup class for twelve blooms, old or new, and I congratulate the firm most heartily on their winning it. I happened to be one of the judges, and it was a very great surprise on going back, when the cards of identification were turned, to see who had carried off the first prize. Now that the ice is broken, I hope our other large trade firms will enter the lists. Fides, a large, symmetrical, pale bicolor Ajax in this twelve, came very near to being, in my opinion, the best bloom in the hall. Yet on the morning of the second day I was bombarded with "Where is Lord Kitchener?" I thought the War Minister must have come to inspect the measures taken for the safety of the flowers, and, incidentally, that of London; but I soon found that it was only the *Times* that had been doing a little judging "on its own," and had stated in the morning's issue that Lord Kitchener

Daffodil was the flower of all others to see, as being the newest and the best. It might have spotted a worse one. The seedling classes were very interesting. It was decidedly a "trumpet" show. They were present in force, here, there and everywhere, as they say. Buncombe's Bonamy, Miss Warren's fine yellows in Class 34, and Wilson's pale bicolors in Class 2 were all of a very high order. Then, Batson's 489 broke new ground. Its corona was so very small in diameter, being $1\frac{1}{4}$ inches long and a bare three-quarters of an inch wide. Mr. P. D. Williams' yellow trumpet 510 did the same. Its perianth was a most delicate

its dictums overboard whenever they do not agree with it, the question must undoubtedly be raised whether it is worth while having such a book at all. I am going to ask a question on this in committee when we next meet.

It was very pleasing to find Mr. Watts among us in khaki as a second lieutenant in the Army Service Corps (Welsh Division Territorials); but it was a pity he attempted so much, as none of his flowers was named, and in many cases the arrangement in the vases showed haste in setting them up. Captain Kitchin was also present in uniform, but did not exhibit anything. In the second amateur section Major Churcher of Woodcote, Alverstoke, gained six firsts. I thought there were fewer really poor flowers staged this year than ever before. The division of the amateur classes seems to work well, inasmuch as it attains its object, which is the giving as many as possible a chance of winning prizes. In Section III. we had Major Churcher, Canon Fowler and Miss Warren as the top dogs, while Mr. G. Stocks was a good runner-up. In Section II. Mrs. Gage-Hogg, Mr. Morton and the Rev. T. Buncombe divided the prizes between them.

Awards of Merit.—Two awards were given, to Chryse and Bath's Flame respectively, while the shapely Leedsii Venus only just missed one. Chryse is a very deep yellow Jonquil hybrid of good size, but it struck me as being too rough to ever make a first-rate show bloom; its colour carried it through. The corona is widely expanded, and has a distinct scalloped edge. Dimensions: D, $3\frac{1}{2}$; S, $1\frac{3}{8} \times \frac{7}{8}$; C, $1\frac{1}{4} \times 1\frac{1}{2}$. Bath's Flame gives one the impression of a glorified and magnified Barrii conspicuous with rather a looser general look, owing to the length and narrowness of the segments. The award in this case was given for garden purposes; hence a note should be made of its long stem of at least 20 inches.

Some Striking New Varieties. In all cases in which I have taken the measurements they are given, and also the name of the raiser.

Alchemist.—A clean-cut yellow trumpet (1A) of good substance and texture, with pointed segments well imbricated towards their base and a long, bold corona. Raised by Mr. A. M. Wilson. A rich deep yellow self.

Bonamy, raised by the Rev. T. Buncombe, is a somewhat pale yellow self of excellent proportions and rounded appearance. The segments turn up very slightly at their ends towards the trumpet, giving the whole flower a distinct style of its own. I am afraid in the hurry of getting its photograph taken I omitted to take its measurements, and the same is the case with Alchemist. This last was the larger flower. It would probably be about



NARCISSUS BONAMY, A BEAUTIFUL NEW PALE YELLOW TRUMPET VARIETY. (See text)

lemon and far removed from white, but the judges accounted it a bicolor. When I asked one of them why, I was reminded that the definition of it was "white or whitish." The judges were probably right, as I see, princeps in the classified list is pigeon-holed as a bicolor. The same judges in a class or two further on disqualified Cræsus in the division for yellow-perianthed incomparabilis or large-cupped Daffodils, because they said its perianth was not yellow. I cannot understand this, for it is put down in the classified list as 2A, and if judges are to be allowed to throw

4½ inches in diameter, while Bonamy would be about 3½ inches.

Paris, raised by Bath, Limited, is one of what I call the squat trumpet type. Not that I like the word, but I cannot think of a better. As will be seen from the measurements, the corona is on the short side, though not quite so much as might be inferred, were it not known that it has a wide flange. It is a deep yellow self. D, 4½; S, 1½ × 1¼; C, 1¾ × 2½.

Joffre (Bath, Limited) stood out well as a clean-cut Ajax of a pretty pale shade of yellow. It is a pure self. D, 4½; S, 1½ × 1¼; C, 1¾ × 1¾.

The Don (Bath, Limited) is certainly one of the best varieties that Mr. Leak has raised and, naturally, he is very proud of it. It is a pale bicolor trumpet, the perianth imbricated and the corona boldly flanged. It is the result of a cross between Weardale Perfection and Mme. de Graaff, the first of the two being the seed-bearer. Dimensions of bloom: D, 4½; S, 1½ × 1¼; C, 1¾ × 2. It will be of interest to many to know one of Mr. Leak's experiences with trumpet crosses. He has kindly permitted me to raise the veil, for he, like myself, feels himself to be a bit of a missionary about seedling raising. In many cases he has found that what he considered his best crosses are often very disappointing; while, when he has used such a rough diamond as Mme. Plomp as the seed-bearer, the results have been good.

Dorcas (A. M. Wilson) is a beautiful Jonquil hybrid of perfect form. It is distinguished by having a corona of a rather deeper shade than the perianth. Segments beautifully flat and imbricated. D, 3½; S, 1½ × ¾; C, 1 × ¾.

Ixion (Barr) is a striking giant incomparabilis or a very large, big-cupped Daffodil. The flower has a slightly drooping poise. The perianth is flat and imbricated, set at right angles to the corona, which is a bright orange red; coloured almost to the very base. D, 4½; S, 1¾ × 1¾; C, 1 × 1¾.

Gadfly (J. C. Williams).—This is also a somewhat drooping flower with an ivory white reflexing perianth and a telling eye of orange, with a broad band of dull rose. D, 3; S, 1½ × 1; C, 1.

P. D. Williams' No. 99.—A very refined white trumpet Daffodil which reminded me very much of White Knight. The perianth was solid, smooth and clean cut. One of the best flowers in the show. D, 3½; S, 1¾ × 1¼; C, 1¾ × 1.

Livonia (Mrs. R. O. Backhouse), a pretty Giant Leedsii with undulating perianth and a buff expanding cup. It stood out as very distinct in Mr. Wilson's twelve. D, 3½; S, 1½ × 1¼; C, 1 × 1½.

Jason.—A pale bicolor trumpet of Cactus form. D, 4; S, 1¾ × 1¼; C, 1¾ × 1½.

Carpathian (Engleheart).—A flower that may make a good garden plant. Very much after Glory of Leiden. D, 4½; S, 1¾ × 1¼; C, 1¾ × 2.

THE SEA PINK OR THRIFT.

ALTHOUGH *Armeria vulgaris*, or *maritima*, is a native plant of our sandy coasts, it is well worthy of inclusion among other plants in gardens, particularly those situated inland, where it would not be found in a wild state. Its neat tufts of green, grass-like foliage make an excellent edging to pathways, especially where the soil is sandy and where many other plants would fail. One has pleasant recollections of rural cottage gardens where it is so used, and where, from June onwards until well into August, its globular flower-heads give a rare display of rose pink colour. As a rock garden plant, where plenty of space is



A BEAUTIFUL GROUPING OF THE SEA PINK IN THE ROCK GARDEN AT FRIAR PARK.

available, and where it can be massed in quantity, this humble plant, or one of its varieties, will create a cascade of green and pink such as few other plants are capable of. Evidence of this is shown in the accompanying illustration, from a photograph taken in Sir Frank Crisp's garden at Friar Park, Henley-on-Thames. The white-flowered variety, named *A. vulgaris alba*, is a charming plant, and the same may be said of *A. v. lauchiana*, with extra deep pink flowers and a more tufted habit than the type. Another variety, known as *Crimson Gem*, is also worthy of a place, its blossoms being a good shade of bright crimson.

G. D. S.

THE MORaine AS A FEATURE OF THE SMALL ROCK GARDEN.

THE moraine is the latest craze among alpinists; it is the latest phase of rock gardening, and one of the most fascinating. It is also a subject on which lately a very great deal has been written. However, I do not think it is an exhausted ground yet, and I propose to treat it in a way which I think is simpler and less expensive than any I have heard of. It is no doubt an advantage to have such things as underground water, but to some the very mention of perforated pipes and water supply is a final and insuperable obstacle. I myself was in a position rather like this, being landed with over a ton of granite chips and a plot in my rock garden about three yards by two yards to turn into a moraine. I decided that the additional expense which would be involved in introducing water was too great, and so proceeded to build my moraine without it, and I may truly say that I have never regretted my decision.

It is for rock gardeners in the same position as this that these words are intended. The labour for a small moraine is not at all heavy, and very interesting. The cost varies according to the stone used and the distance it has to be carted. Living as I do on the Surrey-Sussex boundary, granite and limestone both have to be brought a considerable distance. For various reasons I decided that I could get granite cheaper and more easily than limestone. When all was paid, including carting the chips four miles from the station, they cost me 18s. As all the making of the moraine was done by myself, the labour cost me nil.

The Best Stone.—If a choice of stone is possible, the blue "Craven" limestone is usually considered ideal; almost any limestone is good. Sandstone

should be used with caution, as some forms are too soft and crumbly when in chips. Granite is satisfactory in almost every respect, except that it is not quite as porous as might be desired, and so does not withstand drought quite so well. However, it is very pleasing to look at, as the colour is good and shows off the plants to the best advantage. Broken brick makes an excellent substitute for stone, and can be mixed in equal parts with the chips in the lower layers. The surface, if possible, should be pure stone for 2 inches or 3 inches.

The Soil to be mixed with these chips I formed of loam and leaf-mould in equal parts, and a little

peat for some plants. If there is no grit among the chips, a little sharp sand should be added. I mixed this with the chips in the proportion of one to seven or ten.

How the Moraine was Made.—The ground being prepared, I spread 4 inches or 6 inches of broken bricks over it, and beat these down to make them firm and to prevent the chips washing away through them. The moraine mixture was then laid over them to a depth of 18 inches or 2 feet, and made more or less level. As it was my object to make this as natural as possible, I carried the chips back between two small cliffs, from which the moraine now spreads in quite a realistic way. To make it easier to tend the plants, some flat pieces of stone were sunk here and there to step on. To keep the chips from washing down on to other parts of the garden, the moraine was irregularly edged with fairly large rocks. It is a great help to see some well-made moraine before embarking on the construction of one, and I think that no one will do amiss to visit the rock garden of the Royal Horticultural Society at Wisley in Surrey and see the moraine there.

Suitable Plants.—I planted in this moraine chiefly difficult things and those that especially dislike excessive moisture. Among the *Androsaces* I have *Chamaejasme*, *Chumbyi*, *glacialis*, *Hausmannii*, *primuloides*, *sarmentosa*, *sempervivoides* and *villosa*. The larger ones, of the *sarmentosa* group, are romping, and the smaller ones, with the exception of the difficult *glacialis*, are strong and happy. They all like lime except *glacialis*. I am not quite sure whether *sarmentosa* is best in the moraine. It is always so glorious in a good chink. Of *Campanulas* there are *Allionii*, *cenisia*, G. F. Wilson, *pseudoraineri*, *pulla*, and there used to be *Zoysii*, but I have now lost it. All the others are flourishing. *Allionii* and *cenisia* I keep right away from lime in pure granite. The Pinks (*Dianthus*) are represented by *glacialis* and *Freynii*. Both are dwarf and very slow spreading, but well worth some trouble, as the stemless pink flowers, which nearly cover the plant in the case of *Freynii*, are very beautiful. They are almost impossible out of the moraine.

Gentiana verna is an excellent moraine plant, but requires more moisture than the average. This, however, can be supplied from above. Associated with *Primula farinosa* it is one of the most lovely sights of the marshy spots in the Alps, where I collected them both. I do not think we can do better than follow Nature's example and plant them together. The smallest *Geum*, *reptans*, is also very happy among the stone chips. Its large, bright yellow flowers are very pretty above the dark green leaves. *Edraianthus pumilio*, a plant closely allied to the *Campanulas*, which bears a profusion of beautiful purple blue bells above the thin grass-like leaves, is an ideal moraine plant. Of the *Primulas*, *carniolica* is not well suited; in fact, it was only through a stray label that it was ever planted

there. *Farinosa* does well and retains its dwarfest form. It survives drought very well in the moraine. *Tyrolensis* is a wee treasure, but constantly attacked by slugs. It is very like *Allionii*.

Perhaps most of my moraine plants are *Saxifragas*, and certainly they are at home. *Borisii* (yellow), *diapensioides* (white), *Grisbachii* (red), *lilacina* (pale lilac), *porophylla* (red), *scardica* (white) and *Strybnyi* (red) have all been planted, and, except for *Borisii*, with signal success. I think *Borisii* would prefer a sunny pocket with leaf-mould and grit. *Diapensioides* must have a great deal of lime. *Grisbachii* is a splendid plant, and, as I write, five red flower-stalks are gradually growing longer and longer out of one plant. It should be well surrounded with fairly large pieces of stone. *Lilacina* is a tiny cushion like a lichen, with large, pale lilac blooms, borne singly. It is a treasure, and grows to perfection in the grey chips. This also is just finishing a goodly flowering

ANEMONE NEMOROSA BOSNIACA.

THE typical Wood Anemone (*A. nemorosa*) is known to all, and no woodland wilding, probably, is more appreciated, as in the early springtime it carpets the earth with its white blossoms. It is interesting and instructive at such times to mark the varied places in which it makes its home—now in the driest of places, where later the Bracken will tower well overhead; anon in places cool and moist, often quite wet—yet apparently happy in both, if varying in stature by reason of its environment. It is usually, however, in moist places and in cool, deep loams that it shows its fuller strength and luxuriance, and at such times it may reach to 9 inches or more high. Object-lessons of such moment should never be ignored by the gardener, since it is out



ANEMONE NEMOROSA BOSNIACA AS A ROCK GARDEN PLANT.

season. *Porophylla* is a small red-flowered species of comparatively easy culture and very pretty. *Scardica* grows well and flowers, but not very freely.

Lastly comes the lovely *Strybnyi*, a curious plant with drooping flower-stems bearing red flowers almost obscured by the hirsute calyx of the same colour. Two *Soldanellas* also thrive in an odd corner. Last autumn I added *Androsaces pubescens* and *helvetica*, *Dianthus alpinus* and *cal-alpinus*, *Lewisia*, *Cotyledon* and *Saxifraga retusa*, but so far I know very little about them.

The only ones I protect with glass are the woolly *Androsaces*, *Gentiana verna* and *Campanula cenisia*. I hope the experience recorded above will induce some other readers to take up this fascinating and not over expensive hobby, suitable for large or small gardens. G. PHILIPSON-STOW.

Blackdown House, Fernhurst, Sussex.

of their teaching value that gardens, often enough, may be beautified beyond the limits of orthodox or rule-of-thumb methods. The fine blue Wood Anemone (*A. robinsoniana*) I have grown to a foot high with its toes constantly in water; but the fact has never precluded my planting it in light, well-drained soils, in which a plentiful supply of cow-manure compensated to some extent for the absence of moisture and cooling effects the other situation naturally afforded. True, a lesser stature—I do not think a diminished beauty—resulted; but on the principle that “a small loaf is better than no bread,” it gave much satisfaction. Of the white-flowered Wood Anemones there are several forms, single and double: *alba flore pleno*, *bracteata flore pleno*, *rosea*, *rubra* and the subject of the present note, so admirably portrayed in the accompanying illustration. It is shown on a raised bank in the rock garden at

Kew, far away from water or its cooling effects, yet beautiful withal. In its rounded form it is the most comely of the white-flowered sorts, pinkish in the bud state, the colour showing a suffusion through the otherwise white petals. It is a great beauty, meriting universal cultivation. E. H. JENKINS.

CONCERNING GARDEN SEATS.

ALTHOUGH the present weather does not conjure up any pleasant picture of sitting in the garden, we are well on the road to summer, and even the cold wind does not make us forget that warmer days are coming. There is little wisdom in deferring thoughts of garden seats until we are ready to use them, for they take some time to make. It is not so many years ago that the last word in garden seat design was rustic, and the main endeavour was to secure enough stout, contorted branches of which to build the arms and backs of seats. It must be admitted, however, that these seats were often very uncomfortable, and certainly they do not accord well with the formal sort of gardening which is now almost universal.

With a more conscious sense of design in the outlines of the garden itself, the deliberate use of natural forms in rustic woodwork has rightly gone out of fashion. We approach the question rather with the intent of producing furniture

seen in our illustration on page 213, which serves, moreover, to adorn another moral. One of the principal uses of garden furniture is to emphasise the lines of the garden itself. Seats and tables should be placed so that they form pleasant focussing points in a vista, or help to outline (as in the latter illustration) the shape of the spot where they are placed. No doubt it is ideal from the practical point of view that they should be of some hard wood like oak, which grows silvery grey under stress of weather, or teak, which is even more durable. Nevertheless, the well-seasoned deal, of a sort that does not tend to split on exposure to rain and sun, is good enough if carefully and regularly painted. Green is a doubtful colour, as it is likely to quarrel with the varied natural greens which are near it. On the whole, white is the safest, though it is apt to look rather staring during the seasons when there is no brilliant colour in the flower garden to relieve it. It is well to provide a paved space for such heavy wooden furniture as is not likely to be moved about, for gravel is not ideally comfortable for the feet, and the disadvantages of grass are obvious. L. W.

PRIMULAS FOR THE WOODLAND.

It is remarkable that whereas Daffodils, Bluebells, Crocuses and even Michaelmas Daisies are freely naturalised in the woodland, yet the wide range of hardy Primulas, so naturally adapted to the woodland, have to a very great extent been overlooked. Even the common Primrose, native of our woods and dells, has been sadly neglected

achieved, while the bulbous plants naturalised under trees and in the wild garden are the admiration of all who see them. Happily, there are many gardens in which the Primrose may be freely grown, and for beautifying a damp, rather low-lying piece of open woodland there is nothing to equal the hardy Primulas, including the Primrose. The value of these hardy flowers in the woodland was forcibly brought to mind last year when visiting the extensive gardens at Clandon Park, Surrey. Here were to be seen little copses in which *Primula denticulata* and its improved and immensely popular form *cashmeriana*, with rich violet purple blooms, were flowering to perfection. Other Primulas were naturalised, such, for instance, as *Polyanthuses*, *Primula japonica*, and even the dainty *P. rosea*. *Primulas farinosa* and *Sieboldii* had been planted extensively, while the newer species, *cockburniana*, *bulleyana* and *Veitchii*, were being tried in similar situations. The beautiful undulated woodland of this Surrey garden, provides ideal surroundings for Primulas. H. C.

SOME INSECT TREE PESTS.

THE numerous insect diseases which attack trees deserve careful consideration from gardeners and foresters, for by timely attention to an affected tree it is sometimes possible to check an epidemic. A familiar disease among Spruce is known as the Pineapple gall disease. The common Spruce (*Picea excelsa*) and the

Sitka Spruce (*P. sitchensis*) are subject to attacks, particularly when the trees are not growing under the most favourable conditions. Diseased trees are readily recognised by the swollen places noticeable on the shoots. On young shoots the galls are green, but on old branches they are brown and dead. These galls appear on one side of the branch and resemble a small cone with needles attached. They are caused by a minute insect (*Chermes abietis*), which punctures the bark when it is very soft and tender. The insect goes through several changes in form during its life cycle, and should be attacked during spring. If a tree is not badly infested, the galls may be picked off and burnt, but, in any case, much good can be done by spraying every ten days during May and June with an emulsion

formed by incorporating six pints of paraffin with 1½ lb. of soft soap and adding the mixture to thirty-six gallons of soft water. The paraffin and soap should be well mixed in one and a-half gallons of boiling water until the soap is dissolved. By this means a creamy emulsion is formed which can be mixed with the water.

The same insect attacks *Abies nobilis*, and forms ring-like galls on the under sides of the branches. This, however, is not the insect



A SELECTION OF PLAIN WHITE GARDEN SEATS.

which is a translation in stouter and simpler shapes of the forms used within the home. Corners of the garden now approximate more to the idea of outdoor rooms, and are to be furnished accordingly. The illustration above shows such a treatment in a garden at Wittersham, Kent, where the three long benches, two armchairs and a table show a pleasant formality of treatment in keeping with their surroundings. On much the same lines are the two curved benches

as a subject for the woodland garden, for it is seldom seen except when planted by Nature. One reason that may account for this is found in the fact that Primroses require a much heavier soil than would suit the above-mentioned bulbous plants, and when planted on a light soil Primroses deteriorate after a year or two. At Kew, where the soil is of a light, open nature, frequent attempts have been made to naturalise the Primrose, but a really good display of bloom has never been

which causes the gouty swellings so frequent about the growing points of stems and branches of that tree. Frequent applications of the foregoing mixture are beneficial. It not infrequently happens that trees growing on hot, dry soils, or under other unfavourable conditions, are attacked by scale insects. Among conifers, species of Cupressus, Thuya and Juniper are very liable to attack; while among deciduous trees, Willow, Ash and Pyrus are often victims. The conifers may be treated in spring as recommended for the Spruce aphid, while deciduous trees may be given in addition a winter wash of a stronger character, which will help to cleanse the bark of all kinds of impurities. This wash may be composed of 2lb. of caustic soda (98 per cent.), 1lb. of soft soap, five pints of paraffin and ten gallons of water. The soap and paraffin should be mixed with a gallon of boiling water and the soda with the remaining water, afterwards mixing all together and using as a spray. The mixture must be applied on a calm day, as it is biting, and will cause the skin to peel off the user's hands and face if he allows the spray to blow back over him. D.

SEASONABLE NOTES ON VEGETABLES.

THE months of April and May are among the busiest of the whole year in the kitchen garden. There are so many details in sowing seed, planting, regulating the crops and generally tending to the various items of culture that procrastination has its due reward. So many crops can be spoilt in such a short period by neglect; for instance, the thinning of Beet, Carrots and Parsnips, or the neglect in supporting a row of Peas just at the moment when the tendrils are searching for some support to cling to.

Onions.—No time should be lost in finally planting out the Onions raised under glass. Where a quick and luxuriant growth has to be made, the soil must be well enriched. A sprinkling of Thomson's Vine Manure at planting-time assists growth. Lift the plants carefully with a trowel or handfork, with a ball of soil attached to the roots. Do not plant deeper than before, and so keep the bulb on the surface. Should the weather be dry, sprinkle the plants overhead for a few days.

Peas.—Continue to sow Marrowfat varieties thinly in deeply dug, well-worked soil. Remove the shelter of evergreen boughs from those planted out, giving them all available light and encouragement to grow away freely. Earth up and stake successional rows. Pinch the haulm of those that

are at the top of the supports, removing all lateral growth to concentrate the whole energy of the plant into the swelling of the pods.

Runner Beans should be sown in boxes now for the earliest crop. Place in gentle heat until the seedlings are well above the soil; then remove them to a cold frame, and plant out towards the end of the month in well-prepared soil in double lines 10 inches apart, with the same distance between the plants, protecting the seedlings

plants to suffer for want of water. Plants carrying crops of fruit under glass should have all surplus growth removed and be fed with stimulants of a weak nature.

Turnips.—Continue to make sowings of Snowball, Milan and All the Year Round in well-watered drills should the weather be dry at the time, so as to hasten the germination of the seed and induce the plants to grow away quickly out of the way of the fly.



SIMPLE BOLD SEATS OF CURVED DESIGN PROPERLY PLACED IN THE GARDEN.

at first from cold winds with green boughs or boards stood on edge on the north or east side of the row.

French Beans sown in small pots early in April will now be ready to plant out in frames, both heated and cool, which will give a succession of pods. Cover the cold frames with mats, as a late frost would check the growth. A rich compost is all in favour of French Beans; they grow away more quickly, produce larger leaves, and with these more succulent pods, which is the all-important point in this vegetable. Where they grow slowly, the pods are hard and stringy; therefore every encouragement should be given to induce rapid growth. Frequent syringings when closing the frames, with plenty of sun, help considerably in this direction.

Beetroot.—The main crop should now be sown in drills 14 inches apart, covering the seed with some fine compost.

Tomatoes.—Plants intended for outside against walls and in the open should be shifted into larger pots as desired, and be grown steadily on in a cool house or frame, confining the growth to one stem, removing all side shoots, and never allowing the

Marrows in Frames, and now in the fruiting stage, should have special attention. Ventilate freely and fertilise the b'ooms to ensure a good "set." Water regularly, as much of the dropping of the fruit is attributable to dryness. Sow more seed for outdoor batches.

Winter Greens.—Seeds of Kales, Savoy and Sprouting Broccoli sown during the next week or ten days will provide plants that should come in for use during March and April of next year. Thin sowing and early transp'anting are essential to success.

Leeks should be planted out in well-prepared trenches after the manner of Celery as fast as they are ready, lifting carefully with a good ball of soil attached to the roots, which will prevent a check being given the plants. Protect the plants from cold winds with evergreen boughs. Keep the hoe moving among growing crops like spring-sown Onions, Carrots, Parsnips and Lettuce.

Mulch Peas at once if there is a prospect of drought. Fork over the soil between rows of Potatoes if in any way in a sodden condition at planting-time.

Swanmore, Hants.

E. MOLYNEUX

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Peaches and Nectarines in Pots.—The trees on which the fruits are approaching the ripening stage must be thoroughly exposed to the light, and in order that the sun's rays may reach all the fruits, some of the foliage should be removed or tied aside. The roots may receive a top-dressing of rich farmyard manure, and an abundance of water must be afforded till the fruits actually commence to ripen, at which stage water should not be given to excess.

Early Permanent Trees.—When the fruits have finished stoning, an effort ought to be made to expose them fully to the light. This may be done by propping them up with short pieces of lath. Keep all lateral growth removed and cut back fruitless wood to the basal growth. Mulch the roots with rich manure, and liberally supply them with stimulants. When the fruits commence to ripen, it may be necessary to afford slight protection from bright sun, as some varieties are very susceptible to scorching.

Figs.—To get fruits of the finest quality, they must be well exposed to light and air; therefore all surplus growth must be removed. When the first crop has been gathered, give the trees a thorough washing with the hose-pipe. If a second crop is desired, the fruits should be thinned liberally, and where the growth is too dense, the knife ought to be freely used. Later trees must have copious supplies of stimulants. Give plenty of air during favourable weather, and leave the top ventilators open slightly all through the night.

Plants Under Glass.

Chrysanthemums.—A batch of cuttings may be struck for flowering in small pots. Preference should be given to the single varieties for this purpose. Providing they have been properly hardened off, some of the most forward plants may now be placed in a sheltered position outdoors. The large-flowered kinds must be securely staked, and as a further precaution against rough winds, hurdles should be placed in suitable positions to screen them.

Arum Lilies.—These may now be moved to a sheltered position outdoors. Reduce the supply of water to the roots till the foliage dies down; then turn the plants on their sides for a period of rest. In the month of August they may be repotted.

Humea elegans.—These plants will resent any attempt to hasten them into flowering; therefore keep them moving steadily and shade during the hottest part of the day.

Rose Fortune's Yellow.—We have daily for the past two months been cutting dozens of this beautiful Rose. When the trees have flowered, the flowering wood is cut back to the base. The borders are top-dressed with fresh materials, and plenty of stimulants are afforded the trees during the summer months. The growths will require to be liberally thinned out several times during the season.

Carnations.—Malmaisons are now developing their flower-spikes, and will need more stimulants than hitherto. Clay's Fertilizer alternated with soot-water will promote strength and colour to the flowers. Remove all the side buds from the spikes and keep them neatly staked.

The Flower Garden.

Hardy Ferns.—Most of the plants are now in active growth, and it will be necessary to go over them and remove old dying fronds and weeds. Many species of hardy Ferns can be used for planting beneath trees or on steep banks. In some cases it may be necessary to add a little fresh soil to the roots of established plants.

Carnations.—Some of the Perpetual-flowering varieties are most suitable for planting in the flower garden. Plants being grown for this purpose must be hardened off in readiness for putting out towards the end of the month. They should now be growing in frames, where the lights may be entirely removed during favourable weather.

Tuberous Begonias.—Plants which were potted up and started in heat may now be moved to a cold frame. Carefully inure them to the cooler

conditions by judicious ventilation. If frost is imminent, cover the frames with mats.

Staking.—Some of the plants in the herbaceous border will soon need the support of stakes. Let this be done with careful consideration to the habit of the plants. The growths of some of the plants may need a liberal thinning.

The Hardy Fruit Garden.

Early Strawberries.—Where a plantation was made last year on a warm border to supply the earliest fruits, protection from frost will now be needed. The most efficient protection is secured by erecting a rough framework, so that tiffany or something similar may be easily rolled over it. Clean straw placed among the plants to keep the fruits clean can also be used for covering the flowers on cold nights.

Outdoor Vines.—Rub off all surplus shoots when it can be seen which are carrying the best bunches. One of the chief causes of failure in regard to ripening Grapes outdoors is that of allowing the Vines to develop too many shoots, and this fact must be borne in mind when they are in active growth. A sprinkling with some approved fertiliser occasionally will encourage roots to the surface.

The Kitchen Garden.

Lettuces.—To keep up a constant supply of this valuable salad, small sowings must be made at frequent intervals. Prick out plants which have been raised under glass. Most varieties require a distance of a foot apart.

Endive.—This may be sown thinly in rows, and the seedlings thinned out to a foot apart. There is usually not much demand for Endive during the summer months; therefore little space should be devoted to it.

Salsify and Scorzonera.—The requirements of these are identical in regard to their culture. Sow the seeds in rows about eighteen inches apart. When large enough, thin the young plants to 9 inches apart in the rows.

New Zealand Spinach.—This is a useful vegetable, especially during a dry season. Seed may be sown in rows about two feet apart, thinning the plants to the same distance in the rows.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

Plants Under Glass.

Cinerarias.—The period when the plants are required in flower will rule the time of sowing. For winter flowering, a batch may be sown now in the greenhouse, pricking off the seedlings as soon as they are large enough to handle.

Chrysanthemums.—As the plants increase in height, more head-room must be given them, either by lifting the frames (if portable) on bricks or, in the case of brick frames, by lowering the surface the plants are standing on by the removal of the soil or ashes. Any plants affected by fly should be sprayed with an insecticide, and during fine weather the lights can be kept off, replacing them only in case of frost or heavy rains.

Chrysanthemum Potting Compost.—If the grower has plenty of shed accommodation at command, the compost for the final potting could now be prepared, as it will then be in good condition when it is required later on. The mixture should be kept fairly rough and not made too rich in manures, as far better results are obtained by applying the manure in a liquid form after the plants get established in the new soil.

Violets.—As the plants pass out of flower they may be dispensed with, keeping only a few from which runners can be obtained during August or September. This will clear the frames and allow them to be used for other subjects. The young plants which were put out some time ago will benefit from a syringing in the late afternoon, should the weather be bright and dry.

Bouvardias.—If cuttings were rooted earlier in the season, the plants will now be ready for potting. The Bouvardia thrives in plenty of leaf-soil and sand, and does not like too high a

temperature; in fact, a cold frame from now onwards will suit it splendidly if the lights are shaded during bright sunshine.

The Kitchen Garden.

Runner Beans.—A good sowing should now be made. As slugs and other pests are sometimes very severe on the young seedlings, it will be well to apply a dusting of soot or fine ashes when the seedlings are about to appear on the surface. Apart from their value as a vegetable, Runner Beans may be used with good effect as flowering plants where perhaps a temporary screen is required. Painted Lady is an ideal variety for this purpose.

Celery.—When accommodation in cold frames can be had, the young plants should be given more room by pricking them out 4 inches or 5 inches apart. The syringe must be used freely and the plants shaded for a few days until they recover from the check of removal.

Tomatoes.—Make a sowing to furnish plants that will fruit during the autumn. Plants which are fruiting should receive another top-dressing of loam made rich by the addition of a good fertiliser.

Cucumbers.—If these are to be grown in a frame, make up a hot-bed by mixing clean leaves with some fresh stable litter. After a few days the plants can be put into their places. Ventilation requires special attention when Cucumbers are grown in this way.

The Flower Garden.

Bedding Geraniums.—Like all other bedding plants, these should be well hardened off before being planted out; it is a mistake to keep them too long in the close and perhaps shady conditions of glass houses. Where room in frames can be had, they may be removed there, and failing this, they can be stood in any sheltered position outdoors, where they may be conveniently covered up on cold nights.

Lobelia cardinalis.—This plant, being fairly hardy, may be put out where it is to grow. For preference it likes plenty of moisture, so should the weather be very dry at the time of planting, a thorough watering will be necessary.

Pentstemons may now be safely planted out, whether they are at present growing in pots or on some sheltered border. As some plants may possibly die later, it is a safe precaution to pot up a few of each variety in 6-inch pots, so that any dying plants can be replaced.

The Hardy Fruit Garden.

Strawberries.—It is now time to mulch plants which are fruiting. This not only keeps the fruit clean, but prevents to a great extent the too rapid evaporation of moisture, should the season be very dry. Clean straw is best, if procurable; but before applying it the plants may be given an application of some readily assimilated fertiliser, such as Clay's. Following this, the ground should be gone over with the hoe.

Young Strawberries.—Where the plants are very vigorous, a crop may be taken from the young plantation which was made during August. If, however, the plants are small, it will be to the interests of the crop for next year to remove all the flowers. Encourage a free growth by an occasional hoeing, and if one has the valuable aid of a liquid manure tank, help may be given by applying the liquid in a diluted form during wet and showery weather.

Fruit Under Glass.

Pot Trees.—Such fruit trees as Apples and Pears in pots will be at different stages of development. When the fruits have just started to swell after being fertilised, a judicious thinning should take place, remembering, of course, that there is always a possibility of fruit dropping. This must be allowed for, especially in the case of certain varieties of Pears. The trees which are in a more advanced state of growth and with larger fruits ought to have fairly frequent applications of stimulants. When the grower has not the convenience of an orchard-house, care must be taken that pot trees are not left for long growing in the shade of any other permanent fruit trees.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

THE CULTIVATION OF PHYLLOCACTI.

[In Answer to a Correspondent.]

THE following notes as to the cultivation of the different Phyllocacti may be of service to your correspondent, and, by following them, the white-flowered kind should be induced to bloom in a satisfactory manner. It is very probable that this is *Phyllocactus Cooperi*.

The Phyllocacti are essentially greenhouse plants, and are more satisfactory if grown in a structure where the winter temperature does not at any time fall much below 50°. At that season of the year they need comparatively little water; that is, just sufficient to keep the soil slightly moist. As with succulent plants in general, full exposure to the sun is very necessary to these Phyllocacti, except just when they are in flower, as the blossoms remain fresh longer when they are shaded.

With regard to the treatment of these plants, I will indicate it from the present time, when the flower-buds make their appearance. The plants should be stood in a sunny part of the greenhouse, and kept moderately watered; that is to say, not always saturated. After the blossoms are over is the best time to repot the plants, a suitable compost for the purpose being made up principally of loam, lightened by a little sand, and leaf-mould or peat, with some brick rubble, broken finely.

It is very important that the pots are quite clean and effectually drained, while at the same time they must not be too large, as Phyllocacti greatly resent a mass of soil around the roots. The compost should be thoroughly mixed together, and, in potting, the soil must be pressed down evenly and made moderately firm. After this work is complete, a good plan is to put a central stake to each plant and loop the shoots thereto in a natural manner; that is to say, just sufficient to keep them from swaying about, and not enough for them to present a bunched-up appearance. A good watering should then be given through a fine rose in order to settle everything in its place. As the roots are at that season active, they will soon take possession of the new soil. If the plant does not need repotting, it will be greatly assisted by an occasional dose of weak liquid manure during the growing season.

Throughout the summer months the plants may be liberally watered, always keeping them fully exposed to the sun. If the greenhouse in which they are growing is shaded, it will, in all probability, be quite possible to group them together at one end and remove the shading from that portion. From midsummer onward, if the space is required, they may be stood out of doors, selecting for the purpose a warm, sunny, well-drained spot. They should be placed on a firm ash bottom, and if at the foot of a south wall, so much the better. Under these conditions, care must be taken that they are not allowed to suffer from the want of water. This treatment will lead to a thorough ripening of the wood, so essential to the formation of flower-buds. Even in the case of newly potted plants an occasional watering with weak, clear, liquid manure will be beneficial when the pots are well furnished with roots. Before the heavy autumnal rains set in, these Cacti should be taken back into the greenhouse. As winter approaches they will need less water, till in the depth of the season they require very little. With the return of spring more must, of course, be given.

These Phyllocacti are in some districts very popular as window plants. In order to grow them successfully in this way, a sunny window should be chosen, and the one thing above all to avoid is allowing water to stand in the saucers in which they are placed. During cold winter nights they should be moved away from the window, as it is the part of the room most liable to be affected by frost.

Practically the only insect pests that give trouble are scale, and these should be carefully removed with a pointed piece of wood as soon as they are seen.

Propagation of the different Phyllocacti is a very simple matter, as if the shoots are pulled out of their sockets with a side twist, they form the best of cuttings, no further preparation being necessary. A length of 4 inches to 6 inches is very suitable for the cuttings. They may be inserted around the edge of a pot 5 inches in diameter, clean, well drained and filled with a compost similar to that recommended for repotting, with the addition of more sand. Late spring and early summer is the best time to insert cuttings. H. P.

BRAMBLES AND THEIR PECULIARITIES.

TO the untrained eye the Bramble and the Blackberry are one and the same thing, but while it is true that all Blackberries are Brambles, yet there are many Brambles which do not produce Blackberries; indeed, some of them produce no fruit at all. Probably there is no plant of our hedgerows so much appreciated as the common Blackberry; at the same time, few, if any, of our native plants have given so much trouble to the botanist, who has endeavoured to cope with all the species and varieties that are found growing wild. There are many little differences and subtle gradations between some species that only the trained eye can appreciate. Those differences may be seen in the number of leaflets which go to make up a compound leaf, or there may be a marked difference in the length of the calyx lobes, or, again, the under surface of the foliage of one kind may differ from that of its nearly ally. Such characters are masked to the casual observer; but the botanist attaches a deal of importance to them, on the ground that half the interest of the plant lies hidden in its structure, which, after all, is a revelation of its past history and development. Herein lies the difficulty of nomenclature, ending in some instances in a hopeless confusion of names. Probably confusion is nowhere more apparent than in the genus *Rubus*, as Brambles are botanically known. The reason is not far to seek, for the plants are so variable that it is often hard to say where one species leaves off and another begins; moreover, the varieties are notorious for the ease with which they cross with one another, thus adding to the confusion. Hybridisation and variation have unquestionably given rise to many forms that have been raised to specific rank in local floras. Some species, however, particularly those which are not indigenous to this country, are quite distinct, and not the least remarkable is the White-stemmed Bramble (*R. biflorus*), native of the Temperate Himalayas. The stems of this Bramble are covered with a white, glaucous bloom, and furnished with strong, recurved prickles. H. C.

TULIP SHOW AND CONFERENCE

FOR THE PURPOSE OF CLASSIFICATION.

THE Council of the Royal Horticultural Society have adopted the recommendation of the Nomenclature Committee to hold a meeting for May-flowering Tulips on May 13 and 14 (cut blooms in vases) for the purpose of enabling the committee to decide on the synonyms of the varieties sent.

N.B.—The trade and amateurs may show groups in the ordinary way, but of Tulips only, with any foliage desired. These groups will be arranged along the walls of the Hall, the centre tables being reserved for cut blooms in vases. It is intended that these cut blooms should be arranged in a series of graduated shades of colour. It is of the greatest importance that every variety of Tulip procurable should be contained in these series. Therefore every exhibitor of a group is requested to provide an extra vase of three blooms of every variety in his group in addition to the vases of any not so included. In cases where it is necessary for the committee to examine a variety closely, these blooms on the tables will be used for that purpose, which will prevent any disarrangement of the staged groups. All British growers are invited to send blooms. A full collection of standard sorts of May-flowering varieties will, if possible, be brought from Holland for comparison. The Royal Horticultural Society's labels will be provided for exhibitors to write their own name and that of every vase of flowers they stage. No other labels may be used. Entry forms for this show can be had on application to the Royal Horticultural Society, Vincent Square. In filling up this form the exhibitor must state how many labels he will require, and these will be forwarded to him so that they may be carefully filled up at home before the hurry and scurry of the staging begins.

Wednesday, May 12.—Begin staging at 12 noon at Vincent Square.

Thursday, May 13.—Staging to be finished by 9 a.m., when the Nomenclature Committee begins its work and conference. None but the committee will be allowed in the Hall after 9 a.m. on this day.

Friday, May 14.—Committee continues its work, 9 a.m. At 11 a.m. amateur exhibitors and two members of exhibiting firms admitted to private view. At 1 p.m. Royal Horticultural Society's Fellows admitted. At 2 p.m. the public admitted on payment of 1s. At 3 p.m. a lecture will be given by Mr. E. A. Bowles, M.A., on "The New Classification for Garden Tulips," illustrated with lantern slides.

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

Offices: 20, Tavistock Street, Covent Garden, W.C.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send a null scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

THE BARDFIELD OXLIP (J. D. L., D n).—Bardfield Oxlip and Normandy Oxlip are two local names for varieties of the common Oxlip. There is no essential difference between them. As is well known, the common Oxlip is extremely variable in size and form.

HEDYCHUM GARDNERIANUM (E. V. Coakley White).—Culturally, this species is best when treated like the Canna, that is to say, started during the winter in dryish soil beneath the greenhouse stage, started into growth in heat in March, and grown quickly to the flowering stage. The plant prefers a brisk heat—70°—during the summer, and an abundance of moisture and liquid manure when in full growth. It is the strong annual shoots from the base which flower. When the flowers appear, the plant may be put into much cooler quarters, thus ensuring their remaining much longer in beauty. Good rich fibrous loam, with a little peat, leaf-mould and finely sifted manure, should be given with ample drainage. If you have old plants, shake them free of the impoverished soil, repot, and start in brisk heat as above. The flowers are yellow, fragrant, and borne in a dense cone-like cluster a foot long at the summit of the growth. It is a native of the East Indies, and though nearly hardy in this country, is best if grown on the above lines to ensure a good annual flowering. If your plants have been grown in the past or have become weak or deteriorated by reason of wrong treatment, it is unlikely they would flower this year, though they should be grown to that end. The flowering-time is August and September, though it is controlled by the treatment the plant receives. Formerly it was used in subtropical bedding, and may occasionally be so used to-day.

CARNATIONS ATTACKED BY EELWORMS (P. J. B.).

—The only thing that is likely to be successful in warding off the death of the Carnations is a dressing of sulphate of potash at the rate of about 1½ oz. to the square yard, spread on the surface of your soil and forked in. As to the sterilisation of the soil, the most effective method is by the use of steam, but special apparatus would be needed for this work. It might be done by constructing a cement tank of suitable size and about eighteen inches in depth. Run perforated pipes along the bottom and protect them by a perforated metal false bottom from becoming silted up with soil. The pipes might be of about an inch and a-half in diameter, and the perforations an eighth of an inch in rings at intervals of about three inches. Connect the inlet pipe (no outlet pipe is required, though a safety valve might be an advantage) with a boiler, in which steam at a pressure of 60lb. to 80lb. to the square inch can be generated. After filling with soil, the tank should be covered with sackings and steam driven in until the soil temperature reaches about 200° Fahr., leaving it at that for, say, half an hour. The drier the soil, the more rapidly will the desired temperature be reached. The use of formaldehyde (40 per cent. solution) at the rate of one part to 200 part of water will kill practically all the eelworms, but probably some of the eggs may escape.

SEEDS AND PLANTS FOR OLD WALL (W. A. Flower).

The most likely things to succeed on the wall top and take care of themselves in the future are Wallflowers, Snapdragon, Red Valerian (if not too large) and the Yellow Pimpernel, *Corydalis lutea*. The whole of these may be introduced by means of seeds mixed with loamy soil or clayey loam into prepared crevices between the bricks or stones. You do not say whether the wall is of brick or stone, though the latter is greatly in favour of ultimate success. If of brick and the wall has been built with good mortar, much preparation will be required for the sides, particularly in the direction of forming stations and inserting the seed-charged soil. Then, by reason of its dryness and the difficulty of rain reaching the roots of the plants, much subsequent attention would be required in watering and the like. Early autumn is the best time to start the work, because of the atmospheric conditions prevailing at that time. If the wall is of any extent, you might do worse than consult a specialist on the spot. If of small size, we may help you further if you give us a few more particulars. For the sunny side, *Campanula fragilis*, *C. pusilla*, *Houseleeks*, *Linaria alpina*,

L. pilosa, *Aubrietias*, *Thymes* of sorts, *Erinus alpinus*, *E. albus*, *Sedums* and *Encrusted Saxifrages* should do well; for the shady side, small Ferns and *Linaria Cymbalaria*. There are others, but their success depends not a little on the nature of the wall.

TREES AND SHRUBS.

GRAFTING HOLLIES (M. L.).—You would probably experience considerable difficulty in grafting branches of fruit-bearing Holly upon an old non-fruiting plant. Grafts of two year old wood would doubtless unite quite well with the wood of the stock if grafting were carried out in the early spring, but there would be a continual fight between shoots produced from the stock and the grafted portions. When varieties are worked upon stocks of common Holly, quite young plants are used for stocks, and both grafting and budding are practised, the former indoors in the spring, the latter either indoors or outdoors during the summer. If any of your trees produce female flowers, you can get them to fruit by carrying branches of male flowers from another tree and dusting the stigma of the female flowers with pollen. If, however, your trees bear male flowers only, they will not bear fruit.

THE GREENHOUSE.

FLOWERING PLANTS IN A COLD FRAME (A Constant Reader).—You give us no idea of the size and depth of the frame—whether it is 1 foot or 3 feet deep; and unless you have a fair amount of depth, not many flowering plants could be accommodated in it. Exhibition *Chrysanthemums* cannot be well grown in such a frame, and for the summer are best in an open position where all the sun can reach them. Prior to frosts appearing, they should be removed to a well-ventilated greenhouse, where they may receive every attention till the flowering stage is reached. There are many uses to which a cold frame might be put, but as you wish for flowering plants only, you had better give us the size and depth of the frame, and we will do what we can to help you. Do you wish for summer-flowering plants only, or would Violets for winter and spring be of service?

MISCELLANEOUS.

GOLDFISH IN CEMENT TANK (E. W. A.).—A parasitic fungus, a species of *Saprolegnia*, probably *S. ferox*, often attacks goldfish in cement tanks, and is encouraged by hard, chalky water. If the water which runs through the tank is hard, it should be softened by one of the usual water softeners before it enters it. The cement tank, having been in use for four years, is unlikely to be a source of trouble now; but if the fungus increases, have the pond emptied and dried, scrub it out, and coat the inside with one of those artificial stone preparations used for waterproofing the surfaces of stone. It is sometimes found that the fungus on fish attacked may be checked by putting the fish into a bath of *Condy's Fluid*, a teaspoonful of which is dissolved in a pint of water, and a teaspoonful of this used to a gallon of water to make the bath. But affected fish should be isolated. We regret we do not know of any small book dealing with goldfish exclusively, although there are several dealing with fresh-water aquaria.

NAMES OF PLANTS.—A. M. Rose.—*Billbergia nutans*.—Bell.—1, *Ercilla volubilis*. The Ivies you send are varieties of *Hedera Helix*, but we cannot identify them from the specimens.—A. H. E.—*Puschkinia scilloides*.

SOCIETIES.

THE MIDLAND DAFFODIL SHOW.

The magnificent collection of flowers brought together in the Edgbaston Botanic Gardens, Birmingham, on Wednesday and Thursday of last week was a complete justification of the committee's decision to hold the show as usual this year. We do not think a finer display has been seen at any previous show. High quality and rarity of varieties were almost overwhelming, and we wish more visitors had been present to see such beautiful blooms. As usual, the arrangements were perfect, thanks to the organising genius of Mr. Herbert Smith and Mr. T. Humphreys, both of whom never seem to think that anything is a trouble. Herewith we give a somewhat condensed report of the exhibition, and the Rev. J. Jacob, in his "Daffodil Notes," will next week deal with some, at least, of the many outstanding flowers.

GROUP A.—CUT BLOOMS.

OPEN CLASSES.

For a collection of Daffodils, fifty varieties, representing the different divisions, there were four entries, Mr. C. Bourne, Bletchley, being first with a magnificent lot of blooms. Queen of Hearts, Bishop Gore, Kingdown, Dewdrop and Great Warley were a few of his best. Second a beautiful lot of flowers. We specially noted Red Beacon, Great Warley, Red Chief, The Fawn, Gadfly, Ivorine and Homer. Mr. F. Herbert Chapman of Rye was a good third, fourth prize going to Mr. J. Mallender, Bawtry. Six varieties of yellow trumpet Daffodils, Division 1A, three stems of each, brought forth five entries, the premier award going to Mr. F. H. Chapman, who staged Grandsire, Sea Horse and Formula, with three unnamed seedlings, that numbered 50 E 23 being exceptionally good. Mr. C. Bourne was second with fine examples of The Earl, Lord Roberts, The Doctor, Golden King, Queen of the West and Monarch. The third, fourth and fifth prizes

went respectively to Mr. W. A. Watts, St. Asaph; Mr. J. Mallender and Miss Pope, King's Norton.

A similar class for white trumpets, Division 1B, had only two entries, Mr. C. Bourne being first with very clean flowers of Ivory King, Mrs. G. H. Barr, White Emperor, Mrs. Robert Sydenham, Princess and Agatha. Second prize was awarded to Mr. J. Mallender, whose flowers also were very clean and good.

In a similar class for bicolor trumpets, Division 1C, three exhibits were staged, Miss Pope being first with beautiful flowers of Middleton Favourite, Judge Bird, Glory of Noordwijk and three unnamed seedlings; 834 among these was very promising. Mr. J. Mallender was second, his best vase being of a seedling numbered G 30. Mr. C. Bourne was third.

For six varieties of *incomparabilis*, three stems of each, Division 2A, there were only two exhibits, the premier position going to Mr. C. Bourne for some very clean and good flowers. The other exhibit was disqualified by the judges owing to one vase of a wrong section, viz., 3B, being staged.

In a similar class, but Division 2B, there were three entries. The first prize went to Mr. A. M. Wilson for a magnificent lot of flowers, Gadfly and Gay Banner being wonderful. Second honours went to Mr. C. Bourne, who had very good blooms of Lady Moore, Great Warley and Macebearer among his six. Miss Pope was placed third, Lady Margaret Boscawen being her best.

For six varieties of Barri Daffodils, three stems of each, Division 3A, there were three entries, the first award going to Mr. A. M. Wilson, Bridgewater, for magnificent examples of unnamed seedlings. Mr. C. Bourne was second, his *Eschscholtzia*, a very vivid red-cupped flower, being particularly good. Mr. F. H. Chapman was third.

In a similar class, but Division 3B, competition was rather better, five exhibits being staged. The first prize went to Mr. A. M. Wilson, Bridgewater, who had magnificent flowers of Red Chief, Whelp, Red Macaw, Alaric and two seedlings under numbers. Second honours went to Miss I. L. Wilson, who had grand blooms of Capper and some unnamed seedlings. Third and fourth prizes went respectively to Mr. F. H. Chapman and Mr. C. Bourne.

For twelve varieties of Leedsii Daffodils, Division 4, there were three entries, the Rev. J. Jacob occupying the premier position with a good lot of flowers. White King, White Mere, H. C. Bowles, Mrs. W. O. Wolseley and Nana were five of the best. Mr. C. Bourne was second, his best flowers being Bianca, Lord Kitchener and Selene. The third prize went to Mr. J. Mallender.

For three varieties of triandrus hybrid Daffodils, Division 5, three exhibitors competed, Mr. F. H. Chapman being first with beautiful flowers of Alys and two shown under number. Mr. W. F. M. Copeland was second, the third prize being withheld.

In Class 11, for six varieties of *Tazetta* hybrids, Division 8, there were again three entries, Mr. A. M. Wilson being first, all the flowers being shown under numbers. Messrs. Cartwright and Goodwin were second, Rubellite being very good.

Class 12, for nine varieties of true *Poeticus*, included a magnificent lot of flowers, three exhibitors trying conclusions. Mr. P. D. Williams, St. Keverne, S.O., was first, his blooms of Eurydice, Snow King, Tennyson, Sarchedon and Madrigal being exceptionally good. Second honours went to Mr. A. M. Wilson, who had Tennyson in grand form; third, Mr. F. H. Chapman, with seedlings, all under numbers.

SINGLE BLOOM CLASSES.—OPEN.

For a single bloom of a yellow trumpet, Division 1B, Mr. P. D. Williams was first with a magnificent seedling; second, Mr. C. Bourne; third, the Rev. T. Buncombe; fourth, Mr. F. H. Chapman; fifth, Mr. T. Batson.

In a similar class for a white trumpet, the premier award went to Messrs. Cartwright and Goodwin for a magnificent bloom of White Emperor; Mr. P. D. Williams, Mr. A. Wilson, Mr. H. Lee and Mr. C. Bourne following in the order given.

For a bicolor trumpet Mr. P. D. Williams was first with a seedling; second, Messrs. Cartwright and Goodwin; third, Mr. A. M. Wilson.

For an *incomparabilis*, Division 2A, Mr. N. Y. Lower was first with a fine bloom of *Cresus*; second, Messrs. Cartwright and Goodwin; third, Mr. J. Simkins.

In a similar class, Division 2B, Mr. P. D. Williams was first with an unnamed seedling; second, Mr. H. F. Holmes; third, Mr. C. Bourne.

For a Barri bloom, Division 3A, Messrs. Cartwright and Goodwin were first with a beautiful bloom of Mozart; second, Mr. N. Y. Lower; third, Mr. P. J. Worsley.

In a similar class, Division 3B, Mr. P. D. Williams was first with a beautiful red-cupped seedling; second, Mr. C. Bourne; third, Mr. H. R. Darlington.

For the best Leedsii Mr. P. D. Williams was again first with an unnamed seedling; second, the Rev. J. Jacob; third, Mrs. Ridley.

For the best single triandrus hybrid Mr. P. D. Williams was first with Primrose Dame; second, Mr. F. H. Chapman; third, Mr. W. F. M. Copeland.

For a single cyclamineus hybrid Mr. P. D. Williams was first with a seedling; second, Mr. W. F. M. Copeland.

For a single *Jonquilla* hybrid Mr. A. M. Wilson was first with an unnamed seedling; second, Mr. P. D. Williams; third, Messrs. Cartwright and Goodwin.

For the best *Tazetta* Mr. F. H. Chapman won premier prize with a wonderful yellow flower that had a deep red eye; second, Mr. A. M. Wilson; third, Mr. C. Bourne.

For a single bloom, true *Poeticus*, Mr. A. M. Wilson was first with a beautiful seedling; second, Mr. P. D. Williams; third, Mr. F. H. Chapman.

For the best double Daffodil Messrs. Cartwright and Goodwin were first; second, Mr. W. A. Watts; third, Mr. H. Lee.

THE GARDEN.

No. 2268.—VOL. LXXIX.

MAY 8, 1915.

NOTES OF THE WEEK.

A Good Plant of *Lewisia Howellii*.—When in the Royal Horticultural Society's Gardens at Wisley last week we noticed a particularly good specimen of this charming, though to cultivators often vexatious, plant. Three large inflorescences were fully open and twelve others were in various stages of development, with possibly a few others to come.

A New Dwarf *Rhododendron*.—Flowering for the first time in the rock garden at Wisley is *Rhododendron olicifolium*, a dwarf, compact species sent home from China by Forrest. In general appearance it somewhat resembles the well-known *R. racemosum*, but the flowers are larger and more bell-shaped, with a deeper rosy pink colour. It promises to be a very useful species for the rock garden.

Deep Blue and Pale Yellow Flowers.—On a small and rather steep bank near the Wisley rock garden we noticed a charming combination of blue and pale yellow flowers. This had been brought about by planting *Muscari Heavenly Blue* with that beautiful little *Hoop Petticoat Daffodil*, *Narcissus Bulbocodium citrinus*. Such an effect could be advantageously reproduced in many situations, and we record it now so that it may be noted for reference when planting-time comes.

Commission for Mr. T. Percy Peed.—Mr. T. Percy Peed, of the well-known firm of John Peed and Son, West Norwood, has obtained a commission in the New Army. Mr. Peed enlisted in the King's Royal Rifle Corps in the early stages of the war, and was promoted to the rank of corporal. He has now been offered, and has accepted, a sub-lieutenancy in the South Staffordshire Regiment, and entered on his new duties on the 19th ult.

Retirement of Mr. George Massee.—The retirement of Mr. George Massee, V.M.H., from the Herbarium staff of the Royal Gardens, Kew, on account of the rules regarding age limit, will cause regret among many Old Kewites. In 1893 he succeeded Dr. M. C. Cooke in taking charge of the Cryptogamic Department, where fungi of all kinds received his special attention. As an author Mr. Massee was very active, and his books on various plant diseases and fungi generally are known all over the world.

Our Sub-Editor Wounded in Action.—We regret to state that our Sub-editor, Mr. H. Cowley, who has been "somewhere in France or Belgium" with the 12th County of London Regiment since Christmas Day, has been wounded. Happily his injuries are not severe, as the following extracts from a post card written by him on the 25th ult. will show: "For the past eight days we have been in severe battle. I am slightly wounded by shell—only a bruised rib, and am in hospital. I expect to return to battle in a day or two. Dreadful warfare is still raging. It is a great struggle—we *must* win." All who know

refined, both in shape and colour, the interior of the flower being white, while the outside of the petals ranges from light blue to purple. It is by no means a new plant, but one that is seldom seen, and is excellent for the shady parts of the rock garden. The accompanying illustration represents a colony of a beautiful form of *Anemone blanda* growing in the rock garden at Wisley. The corms were, we believe, collected in Asia Minor. The flowers are large and exceptionally good in colour.

The Value of *Aubrietias*.—As a class the *Aubrietias* are among the indispensable subjects of the spring, coming and going each year, and requiring very little attention. They are now in full splendour, the tufts being masses of colour, almost hiding the foliage. There are many really fine sorts now in commerce, Dr. Mules, Fire King, Crimson King, Mrs. Lloyd Edwards, Model, Moerheimii and Leichtlinii being among the best. Where space for them is somewhat limited, they may be cut back hard as soon as the flowers are over. This will give them a close, compact habit and produce plenty of young growths for cuttings.

Briar Wood for Pipes.—According to the current issue of the *Kew Bulletin*, which quotes the Diplomatic and Consular Report, a considerable industry has arisen in Corsica during the last few years in the cutting and exporting of blocks for pipe-making, 523 tons of these little blocks being exported in 1912. "Briar wood is obtained from the Tree Heath (*Erica arborea*), and the pipe blocks are cut from nodules which form on the roots. These nodules are very hard, and vary considerably in size, many being from 9 inches to 12 inches in diameter. The burr-like character of the wood presents a singular appearance



A CHARMING FORM OF THE GRECIAN WINDFLOWER, *ANEMONE BLANDA*, IN THE ROCK GARDEN AT WISLEY.

Mr. Cowley will join us in hoping that his wound is not more serious than he indicates, and will appreciate the characteristic touch of the last three words, "we *must* win."

A Beautiful *Anemone*.—The Grecian Windflower, *Anemone blanda*, that is so beautiful in our gardens at the present time, is among the most prized of the hardy flowering plants. It matters little whether the flowers are the fine blue of the type or one of the several forms which vary from white to deep purple. The beautiful variety *scythica* is later in coming into bloom than some of the forms. The flowers are large and most

by reason of the twisted fibres, and when filled and polished is often very beautiful. *E. arborea* is known as a large bush 15 feet to 20 feet high, with tiny dark green leaves, and in March and April as a decorative flowering plant of the first quality, the small, fragrant white blossoms being produced with the greatest freedom. It succeeds well in the South of England, and several large masses of plants 5 feet or 6 feet high are among the most prominent floral effects at Kew during the spring months. The English name 'Briar' is a corruption of the French word 'Bruvère,' meaning Heath."

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Recipe Wanted for Making Elder-Flower Water.—Can any of your readers give me a recipe for making Elder-flower water?—LADY N.

Cabbage Sutton's Harbinger.—I have been much impressed with this variety during the present season. Sown on July 16 last and planted on a northern slope on September 9, it was ready for cutting the first week in April. The stock proved to be perfectly true, quite distinct, and not one plant showed signs of bolting. It is an invaluable Cabbage to all cultivators.—E. BECKETT, V.M.H.

A Tall Specimen of Berberis Aquifolium.—In answer to Mr. C. Comfort's enquiry, there is a plant of the above in a shrubbery border in Kensington Gardens, London, at least between 6 feet and 7 feet in height and from 3½ feet to 4½ feet in width. I saw it last Easter Monday, when it was carrying some excellent heads of flowers, and I happened to mention to my wife, who was with me, that it was the finest plant of its kind I had seen.—C. T., Highgate.

Flowering Sprays of a Rare Tree from Lancashire.—Mr. F. A. Fenner, Holker Hall Gardens, Cark-in-Cartmel, Lancashire, sends us flowering sprays of *Laurelia aromatica*, or *L. serrata*. In writing he states that the tree is 23 feet in height, with a 15 feet spread of branches, and that it is flowering profusely this year. This tree is a native of Chili, and is by no means common in this country, the best specimen we know, a fine tree 50 feet high, being in the gardens at Penjerrick, Cornwall. When crushed, the foliage, which is deep, glossy green, emits a decided fragrance resembling that of the Bay Laurel. It has hitherto been considered hardy only in the milder south-west counties of England and in Ireland, and we congratulate our correspondent on his success in growing and flowering it in Lancashire. The accompanying illustration of a spray gives a good idea of the size and shape of the flowers, which are greenish yellow in colour.

Cytisus fragrans.—The note on this *Cytisus* in THE GARDEN for March 6 recalls to my memory some very fine specimens in the Temperate House at Kew about forty-five years ago. The foreman of the Temperate House at that time was Mr. Andrew Dick, a gardener of the old school. He set to work to grow some specimens of this *Cytisus* as he had seen them grown in his younger days, and I must say he produced some very fine plants. They were raised from seeds, and, as they grew, the main shoot was secured to an upright stake. It was not stopped in any way, but as it grew pushed out side shoots freely, so that some of

the plants at least formed almost perfect pyramids. Speaking from memory, I should say the plants were from 8 feet to 10 feet in height; but it is quite possible, after that lapse of time, to make a mistake. However, there is no question as to the large size attained by the plants and their great beauty when in flower, in which condition they were admired by everyone. Another plant that the same cultivator was very successful with was *Fuchsia splendens*, of which he used to grow large specimens full of bloom. With regard to the *Cytisus*, although *fragrans* is now regarded as the correct specific name, it is far better known



FLOWERING SHOOT OF *LAURELIA AROMATICA*, A RARE TREE FROM CHILI. A SPECIMEN HAS FLOWERED THIS YEAR IN LANCASHIRE.

as *Cytisus racemosus*, while it is the *Genista* of the market-growers, by some of whom it is cultivated in large numbers, and in the season forms a very conspicuous feature on the costermongers' barrows in the streets of London.—H. P.

Treatment of Bouvardias.—I was interested to see a note on these beautiful greenhouse plants on page 205 of May 1 issue. In addition to stem cuttings, I have practised the taking of root cuttings for several years. Small pieces of root, taken off in early spring and planted in a pot of sandy soil, quickly make good plants for flowering the following winter.—A. B. ESSEX.

An Inexpensive Wall Garden.—The discussion on "Undesirable Plants in the Rock Garden" affords a valuable excuse for writing under the heading, for the two principal subjects of controversy, *Arabis alpina* and *Cerastium tomentosum* are two of the finest, though the commonest plants for this purpose. Their rampaging (I thank the controversialists for teaching me the word) qualities are in this connection valuable assets. No one can fail to admire these beautiful plants, yet in a small rock garden they must, the enthusiast, give place to rarer plants. But surely we are not bound to ban them entirely

from the garden or to limit them to the doubtfully artistic rôle of edging plants. Their inclusion in the wall garden is a welcome compromise. They will drape a dry wall to a considerable depth, and as the dry wall is usually footed by a hard path, the encroachment on this can be tolerated or stopped, according to the will of the owner. The plants I here mention as suitable for the wall garden are all easy to grow and give fine floral results, and once they are established they need less attention than plants in other situations. Beyond occasional weeding and trimming off of dead foliage and stems, the wall garden can very well take care of itself, for even in a dry summer no watering is needed if a good back run of soil is provided, and especially if a sloping face is given to the wall. I recommend readers to try their skill first of all with the following plants. Choice kinds can be added as the reader becomes familiar with their requirements by their behaviour in the rockery. The Rock Pinks are fine for the purpose, as are also most Saxifrages. Even the old-fashioned London Pride may find a place. *Aubrietia*, of course, is indispensable, and *Alyssum saxatile* gives a fine glow of golden colour. I have not yet tried *A. argenteum* for the purpose, but its habit seems to indicate its suitability. Sea Pinks and Rock Roses are sure to do well. There are also many Sedums suitable, notably *S. ibericum*, and I fancy *S. spectabile* would also do splendidly. *Nepeta Mussinii* is an old and tried favourite. Rock Roses and *Viola cornuta* must be included also *Santolina*, *Rosemary* and

most probably *Southernwood*. *Phlox subulata*, *Veronica rupestris*, *Iberis sempervirens*, *Arenaria montana*, *Draba aizoides*, *Anthemistinctoria*, various kinds of *Campanula*, *Centranthus ruber*, *Snappedragons*, *Wallflowers*, *Linum flavum* and *L. perenne*—all these may be expected to do well if given a fair start. There is hardly any garden where a praiseworthy excuse cannot be found for the making of a wall garden. Whatever the aspect, and whether shaded, sunny, sheltered or exposed, we can always find suitable plants to adorn such a wall.—WILLIAM F. ROWLES.

The Fritillary as a Wild Plant.—In "H. C.'s" interesting article on "The Charm of Common Spring Flowers" he mentions the Fritillary. It is readily grown in the garden and sows itself freely, the white variety more freely than the chequered. Let me suggest to your readers to grow it from seed. It is grievous to see this flower in Oxford Market, tied up in stiff bundles so as to quite destroy its graceful beauty, and, again, gathered in handfuls by the village children and not seldom thrown aside to wither. My friend Mr. Potter assures me that gathering the flowers year after year in tens of thousands must lead to the diminution and, finally, to the extermination of the flower, as it is prevented from increasing in the natural way by seed. I fear that the ruthless plucking of the flowers is more harmful to the Fritillary than to other bulbous plants, because it has so little foliage besides that on the flower-stalk. The sight of a Fritillary meadow in bloom would be still more delightful if the flowers were allowed to seed, as we should then have a sheet of bloom. I wish that the owners of some of the meadows would keep them carefully preserved from gathering and allow us to see them when in full bloom.—F. A. STURGE *Coed Efa, near Wrexham.*

Sparrows and Gooseberry Flowers.—On page 193 of THE GARDEN for April 24 there is a note referring to sparrows and Gooseberries. The sparrows are spoken of as destroying the flowers of Polyanthus, Primroses, Sweet Peas, Gooseberries, &c. A few years ago I noted the same thing, also that they bit them only, never eating them, but leaving the pieces of destroyed flowers on the ground around the plants. It seemed to be moisture in the flowers and leaves they were after. That idea was acted upon. They are no trouble now. They are welcome in the garden. Pieces of fat are hung up for the tits, and crumbs are thrown out for the sparrows, and they are hourly visitors. Sometimes both the sparrows and the tits are seen on various plants, but they do no harm. It is thought they are seeking insects. They are never disturbed. The immunity from harm is secured by providing the moisture the birds need; but the water must not be placed on the ground. The sparrows are too suspicious of the gardener's enemy (the cat) to use it there. It must be mounted on a pedestal 4 feet or 5 feet high, say, a piece of quartering with brackets at the top to support a painted tin or iron bowl about ten inches across. If the tin or iron is not painted, the water will become stained with rust, and the birds will not use it. The robins are very often seen having a long bath in it. It should be very shallow.—O. N. E. ANOTHER. [We thank our correspondent for his letter, but regret that the sparrows with which we have to contend are not so considerate as his. Water and food they have in abundance, yet they ravage every choice plant that is available.—ED.]

Undesirables in the Rock Garden.—As I have hitherto taken no part in the interesting correspondence which has appeared in THE GARDEN, I am possibly in a better position to offer a few remarks on a recent contribution to the controversy—a remarkable letter which appeared in your issue of April 17 over the signature of "Anne Amateur." From it one must only conclude that its writer has never seen any of the many hundreds of gardens in the kingdom in which alpines are grown and appreciated—not

necessarily rock gardens, but even in rock-edged borders and in plain soil. "Anne Amateur" is horrified that "undesirables"—strong-growing, rampagous plants—should be "cribbed, cabined and confined" for the benefit of their weaker neighbours. Some of the suggested methods of restraint were, no doubt, drastic; but the gardener with limited space at his disposal finds great difficulty in keeping within reasonable bounds plants like Cerastiums and Linarias, which—not content with ramping above ground—run for yards under soil and rocks to reappear among choicer things. Personally, instead of endeavouring to restrain these invaders, I have tried as far as possible to replace them by plants of similar appearance but less invasive habit, as, for instance, substituting *Arenaria montana* for Cerastiums. But some plants are not easily replaced, and if one grows them and they encroach beyond reasonable bounds, the ordinary gardener endeavours to limit their encroachments as best he can. Not so "Anne Amateur"; her flowers shall "freely grow and blow at their own sweet will"! I wonder if "Anne Amateur" has ever grown some of the more rampant herbaceous plants, such as *Campanula rapunculoides*, *Polygonum sachalinense*, the taller *Linarias*, *Asters* and *Helianthus*. From the above quotation from her letter one can only presume that she has not, and I would therefore suggest to her as a pleasing experiment that she should plant some of each of these in a bed and let them "freely grow and blow at their own sweet will." I can assure her that at first they will magnificently fulfil her expectations and will grow freely, though as time passes, in their struggle for existence, they will not be able to blow as freely as she and they might desire. I cannot give her the name of the ultimate winner of this titanic struggle, but it should be a close thing between the *Linaria* and the *Polygonum*. Of this, however, I am sure: when she tires of the experiment she will require a pickaxe to break up the tangle of roots she will find in the bed and surrounding grass. Fortunately, "Anne Amateur's" ideal garden is not often seen. I recollect such an one—a jungle which was usually described as "Mrs. —'s very wild garden." The average gardener is happily content to grow all sorts and conditions of plants, restraining the encroachers and encouraging the compact growers. He cares for his plants as a benign parent might care for his children, restraining the strong and encouraging the weak. May the day be far distant when he will be applauded for leaving the weaklings to fight unaided their unequal battle for existence! The discussion in THE GARDEN has at least had one effect: it has caused "Anne Amateur" to resolve that she will not grow alpines. In the circumstances it is a resolution to be commended. Long may she keep it, for so long will the glorious gems of the mountain world be saved from that certain death by strangulation to which "Anne Amateur" would consign them in her tangled wilderness.—M. H.

FORTHCOMING EVENTS.

May 11.—Royal Horticultural Society's Meeting and Exhibition, Vincent Square, Westminster, 1 to 6 p.m.

May 14.—Royal Horticultural Society's Exhibition of Tulips, Vincent Square, Westminster. Fellows admitted at 1 p.m.

May 18.—Royal Horticultural Society's Chelsea Show (three days).

ROSES IN A WEST LOTHIAN GARDEN.

NOT for many years have we enjoyed such a fine summer and autumn in this district as we did in 1914, and the great bulk of garden flowers were exceptionally fine. Roses, early in the season, gave great promise, and certainly the first crop of bloom was everything that could be desired, except that its duration was very short, owing to the dry, sunny weather experienced at the time. The second growth was early and vigorous, and our hopes ran high, expecting to beat our fine record of the previous autumn. Alas! at the end of July we experienced a week of exceptionally cold weather, the thermometer on several nights dropping to 40° or under (on two occasions 38° were registered). The low temperature, accompanied with heavy rain, brought on a severe attack of mildew, which we found impossible to effectually check.

The result was, therefore, a disappointingly poor crop of autumn blooms. Only a few varieties were anything like satisfactory. Even that hitherto unbeatable autumn Rose, Gustav Grunerwald, gave only a very moderate number of good blooms. I am glad to say that, as usual, General Macarthur was the best Rose in the garden, and even on September 28 was making a brave show. Almost equal in excellence was Mrs. E. Powell. This showed but very slight traces of mildew, its glossy, leathery foliage seeming to resist the scourge better than most. Curiously enough, Château de Clos Vougeot was finer than usual, the growth being much more upright than ever before, and the flowers opened well. Rayon d'Or also flowered well, the colour being very clear and brilliant. Lady Ashtown gave some good blooms quite late in autumn, while M. Paul Ledé also had a few exquisitely coloured blooms of good size.

Another fairly satisfactory variety was Mme. Second Weber. This was exquisitely fine at the first blooming. Another Rose that did quite well in autumn was Laurent Carle. The blooms were large and much brighter in colour than usual. Mrs. David McKee, although not over-floriferous, gave some exquisite blooms. Beauté de Lyon, though entirely mildew-proof, is yet a useless garden Rose. The colour is wonderful, but the blooms last only about a day and are very sparingly produced. Lyon Rose was poor in autumn, but more than usually fine at the first blooming. The habit of this Rose is slightly improving here.

The following varieties were very poor last autumn, although more than usually fine in July: Mme. Mélanie Soupert, Mme. Maurice de Luze, Pharisæer, George C. Waud, Mrs. A. R. Waddell, Liberty, Mme. Ravary, Le Progrès, Hugh Dickson, J. B. Clark (exceedingly fine early in the season), Mrs. John Laing, George Dickson (not a very free bloomer here), Edward Mawley, Mrs. R. G. Sharman Crawford, Caroline Testout (extra fine), Viscountess Folkestone, Mrs. W. J. Grant, Betty, Clara Watson, Harry Kirk, Killarney, Kaiserin Augusta Victoria, Marquise de Sinety, Mrs. Aaron Ward, Richmond (better than usual), Rosomane Gravereaux, Warrior, White Killarney and Ulrich Brunner.

Preston House Gardens, Linlithgow. C. BLAIR.

DAFFODIL NOTES.

BY THE REV. JOSEPH JACOB.

The Midland Show.—"Birmingham" has once more come and gone. It is said that in the Civil War in England in the seventeenth century, operations of husbandry went on in some parts quite as usual until the presence of the contending forces on the next farm revealed the stern reality of war in their midst. So it seems to be to-day with the Daffodils. They came to Birmingham from Ireland, Cornwall, Wales, Holland and the Midlands as if there was no such thing as fighting. The presence in khaki of The Brodie of Brodie and Mr. H. G. Hawker might have been the first inkling they had of the fierce conflict in which we are engaged; they looked so much as they always look in their tiered unconcern.

Yes; the flowers were there just as in past years. Fewer cups and eyes perhaps, but, on the other hand, more trumpets. No Engleheart and no Crosfield, but more and better than ever before from Barr and Wilson. No competitors, it is true, for the Cartwright Cup for twelve new varieties that have not been in commerce more than four years, but they fully atoned for this delinquency by their rally round the "home-made" seedling classes, while they verily mobbed the open "fifty" and the amateurs' "twenty-four." No Sydenham to hospitably entertain us—only a semi-public dinner, but with "conversations" afterwards which have never been surpassed for freedom of speech and general interest.

From all these facts readers will infer, and infer truly, that if there were hiatuses, there were also compensations, and that the Midland Show of 1915—notwithstanding war and weather—was no whit inferior to its predecessors. In some ways it differed. Messrs. Barr and Sons entered in several of the classes for seedlings and new varieties, and did not return home empty-handed. Now, Mr. Pearson, Mr. Coey, Mr. Leak, Mr. Ware, you have had a lead; won't you follow suit next year? Mr. A. M. Wilson is, I know, a *very* hard nut to crack, and now that he has got into his stride he will always take a lot of beating; but British troops stand up to "Jack Johnsons." There is plenty of ammunition of the best and latest pattern being made at Shovell; but I fancy the manufactories at Lowdham, Donard, Wisbech and Inglescombe have not been idle of late, and who knows what surprises they may have in store! Among the non-competitive groups one was glad to see that of the Donard Nursery Company from Ireland, for the second year in succession. Had it been better put together and stiffened with choicer varieties, it would doubtless have gained a higher award. That splendid Daffodils can be grown there was shown by the grand King Alfreds, which occupied a central position on



THE NEW NARCISSUS MOZART, WHICH RECEIVED AN AWARD OF MERIT AT THE BIRMINGHAM SHOW. (See page 221).

the stand. One cannot pass by without comment the new roof of what is called the Exhibition Hall, but which is really only a continuation of the conservatories in which the show is held. Mr. W. H. Whitelock, who is the chairman of the Botanical Gardens Committee, told me that he was anxious to keep our Midland Show at the Gardens, and that he hoped the re-roofing had made us more comfortable. I thought it a distinct improvement. The accustomed place of Engleheart knew him not, I regret to say. One had hoped that after the miss at London, Birmingham would have been possible; but it was not to be. The absence of his group was a distinct loss which everyone felt. Birmingham without Engleheart somehow was not the Birmingham of old. I sincerely hope that this second miss does not mean the great veteran's retirement from show life. Our president, Mr. P. D. Williams, was not able to come himself, and we had to be content with his understudy and with some very fine flowers, which, among other achievements, carried off the Bourne Cup to Cornwall. It was very pleasant to see Mrs. E. M. Crosfield in the absence of her husband. After astonishing the good folk in the Forest of Dean, he was resting on his laurels and enjoying a quiet day's fishing at his newly found home near Chepstow. I hope he does not intend to follow the example of Diocletian and retire

I mean. Our New Zealand friends did not like to see so many blooms shown unnamed. I presume we all think much the same, but as no one yet has invented a feasible plan of naming *all* new varieties, we feel we have to make the best of things as they are.

As several visitors were unaware that there was to be a dinner at Birmingham on the evening of the first day of the show, I would like to take the opportunity of saying that the society intends, in accordance with a resolution passed on the evening of the first day of the 1914 show, to make this an annual affair.

New Flowers.—It is always difficult at a show to say which are the best flowers; tastes differ so much that a unanimous agreement is impossible. It is an easier task to single out the most novel. I think the variety that might be so described was

Cicely, a neat, cup-shaped Jonquil hybrid of good form and with most remarkable colouring, the perianth and corona both being of a buff or almost apricot colour. Perhaps Sundew and Centaur were the runners-up. I append descriptions of some of the best and most striking.

Centaur (A. M. Wilson), shown in Class 37 for the White Daffodil Trophy, is a fine bloom of good substance and shape. The whole flower is of a uniform whiteness and has a beautiful clean-cut look. D, $3\frac{1}{2}$; S, $1\frac{1}{2} \times 1\frac{1}{2}$; C, $1\frac{1}{2} \times 1\frac{1}{2}$.

into private life. The palace and garden at Spalato must have been *very* tempting; so, no doubt, is a good stretch of a good river; but Daffodils—

The Dinner.—The first one without our founder, Robert Sydenham, passed off very well. We all tried to dine as usual, knowing that this would have been his wish. About thirty of us sat down to an excellent little repast, fortified by which nearly everyone got on his feet and talked Daffodils. It was only time that prevented it being a regular round-robin affair, for, alas! in the midst of our treasurer's (Mr. C. L. Adams) remarks, eleven o'clock came and cut him off.

The presence of Professor Thomas from Auckland, New Zealand, and Mr. Wilson, now of Somerset, author of a charming little work, written from his *personal* experience, entitled "The Narcissus at the Antipodes," gave a piquancy to the proceedings which we all relished. We saw ourselves as others see us. We were told that triandrus hybrids were a mistake, as none rivalled the wild species. We heard that we were hardly particular enough about refinement and attached too much weight to size; and so on.

One suggestion deserves particular notice—a "bantam" class! Why not? It would be of great interest to have one in which the diameter of the bloom was limited to 3 inches, as it would provide an opening for many flowers that otherwise would open and bloom unseen at shows. Pure Gold, Wendy, Eoster, Ruby and Little Joan are types of what

Sundew (Barr), a giant, star-shaped incomparabilis of great size and lovely texture. The perianth is a uniform primrose and has very pointed segments. The corona is yellow and but little expanded. Dimensions: D, $4\frac{1}{2}$; S, $1\frac{7}{8} \times 1\frac{1}{2}$; C, $1\frac{3}{8} \times 1\frac{3}{8}$.

Mozart (Brodie), one of the flowers which gained an award of merit, is a very shallow-cupped incomparabilis of good substance and with much imbricated segments of a good shade of primrose. The cup is deep yellow and has a well-defined edge of red, which here and there runs in towards the centre as if the brim was composed of three or four large scallops. Dimensions of bloom: D, 3; S, $1\frac{1}{4} \times 1\frac{1}{4}$; C, 1. This was shown by Cartwright and Goodwin.

Gascon (A. M. Wilson) is a giant incomparabilis which looks even bigger than it really is, notwithstanding the perianth *slightly* reflexing. In its natural pose the flower has a diameter of $4\frac{1}{2}$ inches, but when the segments are placed at right angles to the corona it becomes $4\frac{3}{4}$ inches. The reflex relieved the "hit-me-in-the-eye" look which otherwise it would have had. It is a seedling from Princess Mary. Perianth, maize, inclining to a more lemon colour near the cup, which is a deep yellow suffused with orange red, the shade deepening towards the margin. Size: D, $4\frac{1}{4}$ (or $4\frac{3}{4}$ when flattened); S, $2 \times 1\frac{3}{8}$; C, $1\frac{1}{8}$.

Rochester Quinton (Chapman) is a charming flower which, notwithstanding its size, may be

called pretty. It is a seedling from Firebrand crossed with Swashbuckler, and comes under Class 2B. Perianth, white, with some green towards the base of the cup; cup, Nelsonii shaped, with a wide margin of red dissolving into a green centre. D, $3\frac{7}{8}$; S, $1\frac{1}{2} \times 1\frac{1}{4}$; C, $\frac{5}{8} \times 1$.

Puritan Maiden (Pearson), an exquisite, up-setting flower. She has two suitors for her hand, Mr. Trumpet and Mr. Leedsii; both want her, and I do not wonder. The flower is the result of a secondary cross of some of Pearson's well-known Leedsii. Perianth, pure white; cup, pale cream, with a pretty recurving brim. D, $3\frac{3}{8}$; S, $1\frac{1}{2} \times 1\frac{1}{4}$; C, $1\frac{3}{8} \times 1\frac{1}{2}$.

Chapman's First-Prize Poetaz in Class 24 is the result of a cross between Chaucer and Jaune à Merveille. There were two large, smooth, round flowers on the stem, which looked like pale yellow Poets. It is a decided advance. Size of the flowers: D, $2\frac{5}{8}$; S, $1 \times 1\frac{1}{4}$; C, $\frac{3}{4}$.

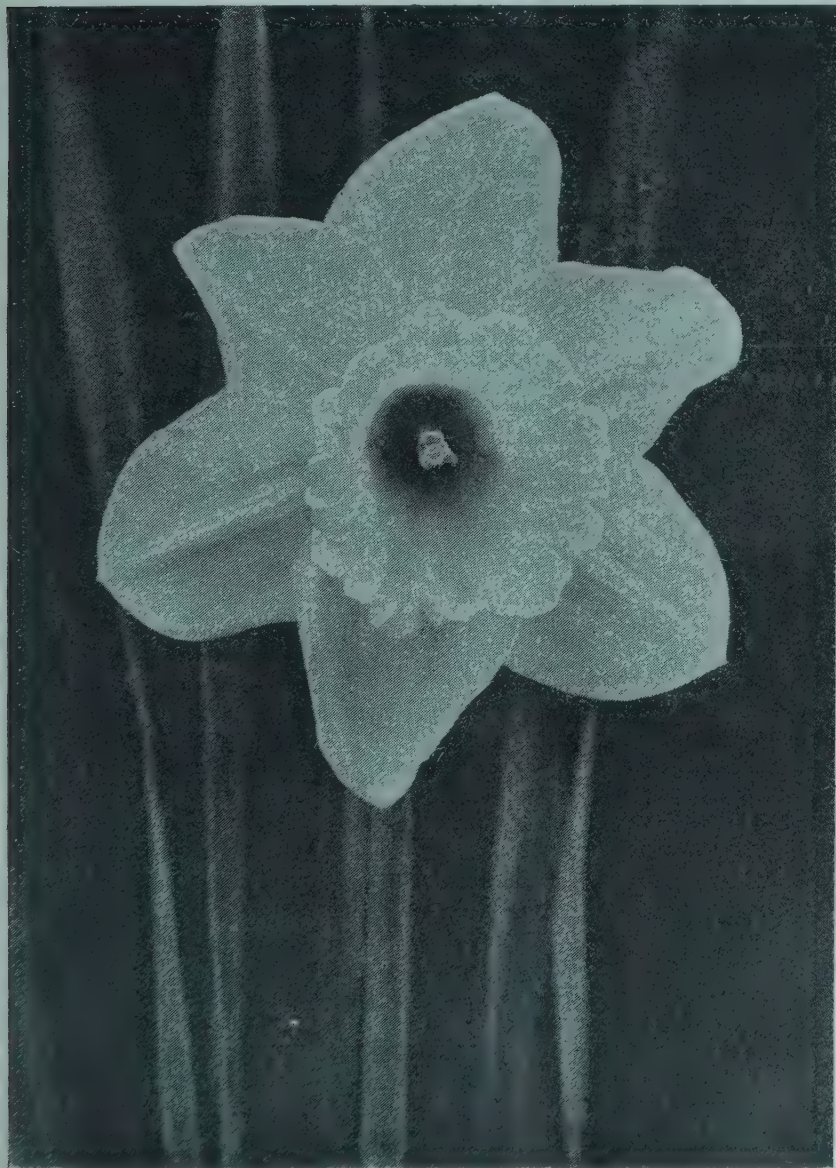
White King (Mallender), a very shapely Leedsii, with a smooth, flat perianth which keeps its shape even in old age. Perianth, very flat, well imbricated, pointed; cup, expanding, pale primrose. D, $4\frac{1}{4}$; S, $1\frac{5}{8} \times 1\frac{1}{4}$; C, $1\frac{1}{4} \times 1\frac{5}{8}$. An excellent show bloom.

Of course, these must not be taken as all the good new flowers at Birmingham. As I have already hinted, there were so many that the average visitor must have wondered what the future of the Daffodil is to be.

AURICULAS FOR THE OUT-DOOR GARDEN.

IN the spring months, when our gardens are filled with dancing Daffodils, gorgeous Tulips, modest Primroses and Sweet Violets, as well as lots of other sweet-smelling or brilliant-hued flowers, it is not surprising that the modest Auricula has to a great extent escaped attention. Yet a few well-grown plants of the section known to nurserymen as 'alpine Auriculas—to distinguish them from their more aristocratic brethren that are only suitable for exhibition purposes—possess a subtle charm that seldom fails to fascinate the average flower-lover.

The history of the Auricula that we know to-day has been a somewhat chequered one. Although grown in our gardens in Queen Elizabeth's time, it was not until about the middle of the seventeenth century that the Auricula began to develop those delightful colours that raised it to a pinnacle of fame, and it was not until a century later that the first edged or show Auriculas were raised. Towards the end of the eighteenth century plants of the latter class were making large prices, and from that time onwards until well into the Victorian Era the show Auricula occupied a position in the front rank of what were termed "florists' flowers." With the development of artistic ideas and



the demand for flowers suitable for the outdoor garden, the show Auriculas fell into disfavour, and it is unlikely that they will ever regain their erstwhile proud position. At the present time they are cultivated by only a few enthusiasts in this country, who appear to understand perfectly their few likes and dislikes.

When those whose business it was to raise new Auriculas realised the trend of public taste, they wisely turned their attention to the alpine section as being suitable for cultivation in the outdoor garden, with the result that among them we now have flowers of exceptionally rich and soft colours, large size and good substance, and, above all, that subtle fragrance without which the Auricula would lose the greatest of its charms.

Unfortunately, the erroneous idea has become prevalent that all Auriculas are difficult plants to grow, and that they need a great deal of protection and attention to bring them to perfection. No doubt this false idea has to some extent been due

proportion of sand, and the seeds must only be lightly covered with clean sand; they are very small and germinate slowly, hence the necessity for shallow sowing, porous soil and thorough drainage. After sowing the seeds, each pot or pan should be stood in a shaded cold frame and covered with a sheet of glass. The seedlings ought to be pricked out separately into shallow boxes or pots filled with fine, porous soil as soon as large enough to move easily, and about fourteen months after sowing, or even earlier if preferred, they will be strong enough to go into their flowering quarters outdoors.

It is in the selection of a permanent place for outdoor-grown Auriculas that some care is needed. They appear to prefer cool, rich, yet well-drained soil, with a light overhead shading from brilliant sunshine. I used to grow them in rather heavy, thoroughly dug soil under the thinnest portions of old Apple trees, well away from the trunks, and also out of the way of excessive drip from the

out in September or for flowering in pots in the conservatory in spring. If grown perfectly cool, the alpine Auriculas make charming pot plants, and their delicious fragrance finds favour in the spring in both conservatory and dwelling-house.

Such, briefly, is the cultivation necessary for one of our oldest flowers, the "Dusty Miller" of our gardens, and one that deserves greater attention from flower-lovers than it receives at present. As with many other beautiful flowers, cottagers have all along realised its merits, and some of the finest alpine Auriculas in existence may be met with in old cottage gardens far outside the sphere of modern civilisation. W. H.

HARDY BAMBOOS AND THEIR CULTIVATION.

THERE are few subjects that add so much grace and beauty to a garden during the autumn and winter months as the hardy Bamboos. Well-grown specimens create an imposing effect, and impart a decidedly tropical aspect to the garden, especially those of the *Phyllostachys* section. It is essential to give the plants sheltered positions where they can receive protection from the cold winds, which do more harm to the foliage than frost. Bamboos are seen to advantage against a background of dark green, such as is provided by a group of Hollies, and there are few gardens where it is not possible to find such a position for them.

The Best Soil.—They succeed best in moist, loamy soil, which should be deeply cultivated beforehand, and in most cases some well-rotted farm-yard manure should be incorporated with the soil.

When to Transplant.—May is the best time to transplant, and it is also a suitable period to plant out young specimens from pots, although this may be done at any time during the summer. It is important to water young plants during hot, dry weather, and even established specimens derive much benefit from occasional thorough soakings during a dry summer. When planting, it is well to remember that the

Arundinarias flourish most in partial shade; but those of the *Phyllostachys* group prefer more sunshine, and will not succeed if heavily shaded by trees.

Mulching.—It is desirable to apply a mulch of well-rotted manure in May or early June, as this helps to conserve moisture in the soil, and subsequent waterings wash the manurial properties down to the roots. Bamboos succeed admirably on the banks of a stream or lake where their roots have the benefit of moist surroundings, and in such positions they look very graceful overhanging the water. On the whole I find a hot summer suits Bamboos the best, provided they are suitably supplied with moisture as they then make vigorous growth.

The Best Varieties.—There are probably about forty varieties in cultivation, and of these I propose to mention the best for general planting. As is well known, most of the Bamboos are natives of



A VIEW IN THE HARDY BAMBOO GARDEN AT KEW. NOW IS THE TIME TO PLANT.

to the elaborate precautions and wonderful soil mixtures that florists of the old school used to adopt in growing plants of the show section. These Auriculas certainly needed, and still need, protection from heavy rains to preserve their delicate farina intact, though the plants of these, and indeed all Auriculas, are perfectly hardy. As already mentioned, the alpine Auriculas are well adapted for growing in the open garden, and if seed is purchased from a good source, a colony of plants, rich in colour and strong in constitution, may be raised with the aid of nothing more elaborate than a cold frame.

Some difference of opinion exists among growers as to the most suitable time for sowing the seeds; but if other circumstances are favourable, one cannot go far wrong in following the dictates of Nature and sowing it as soon as ripe, which is usually about mid-July. The soil used for filling the seed-pans or pots ought to contain a good

overhead branches. This soil was heavily manured with old cow-manure, to which a good proportion of very coarse sand had been added, and in this the plants thrive amazingly. A simple method of propagation that used to be adopted, and which answered perfectly well, was to take away the young, non-flowering shoots or offsets as soon as the plants had finished flowering, and these were planted in a shady place outdoors similar to that already described, and well watered for a week or two. After this necessary mutilation the old plants received a good mulching with dry cow-manure, which imparted remarkable vigour to them and induced them to give us a rare floral display the following spring, when the offsets also would throw a few trusses of large blossoms. The average gardener does not care to risk planting offsets of choice plants in the outdoor garden, and so inserts them in pots filled with good soil and grows them on in cold frames, either for planting

China and Japan, and of these *Arundinaria japonica* (Métake) is one of the most popular and useful, as it is especially hardy and vigorous. *A. nitida* is a distinct and lovely species, with purple black stems and small, lanceolate leaves. It makes an ideal specimen for the lawn. With us it has attained a height of 15 feet, and is very symmetrical in habit. *A. nobilis* is a grand Bamboo, and attains a considerable height; while *A. Simonii* is a handsome plant, which soon reaches large proportions.

There is some doubt about the origin of *A. anceps*, but it is probably a Chinese species. It is certainly one of the best Bamboos, and should be grown by all. The golden variegated foliage of *A. auricoma* renders it particularly attractive. It is one of the best dwarf kinds, of which *A. Fortunei* and *A. Veitchii* both merit a place, the broad leaves of the latter having variegated edges. *Bambusa palmata* is distinct and handsome. It spreads rapidly, and is an ideal plant for the wild garden where it has space to extend. The large leaves are a vivid green above and a glaucous hue beneath.

In the *Phyllostachys* section, *P. aurea* is an ideal plant for grouping. It is an erect grower and of a fairly dense habit. The black stems of *P. nigra* render this Bamboo very distinct. *P. mariacea* is rather uncommon, but is a noble plant with dark green stems that arch pleasingly. In *P. viridi-glaucescens* we have a beautiful species with an elegant and graceful habit. It is perfectly hardy, and its leaves always retain their fresh green colour. *P. fastuosa* is a stately Bamboo of vigorous, upright habit. The stems often reach a height of 20 feet, and form a stately feature among dwarf-growing varieties. This is probably the most handsome Bamboo that is hardy in our climate. *P. Quiloi* is a notable species of vigorous growth and branching habit. *P. sulphurea* is somewhat similar in character. It is quite rare, but is vigorous and hardy, and has beautiful golden stems. *P. mitis* is a handsome Bamboo that attains a considerable height, and the stems grow very rapidly. The attractive striped stems of *P. Castillonis* render this species very distinct and beautiful; while *P. violascens* is also a very fine plant. In *P. flexuosa* we have a graceful kind of much merit that forms an attractive specimen. The graceful stems of *P. Henonis* bear masses of delicate green foliage, which give them the appearance of feathery fronds and render this one of the most charming of all the Bamboos. *P. boryana* is a vigorous species that has the stems marked with deep purple blotches.

We now come to those Bamboos which are natives of the Himalayas, and of these *Arundinaria aristata* is one of the most distinct and handsome. It has purplish stems and tessellated leaves, and with us has attained a height of 12 feet. *A.*

racemosa somewhat resembles *A. aristata* in character, but of the two I prefer the former. In *A. spathiflora* we have an elegant Bamboo. It is a tall plant, and has a dense, plumose habit of growth.

J. GARDNER.

Batsford Park Gardens, Gloucestershire.

THE WALL BELLFLOWER AND PINKS.

The illustration on this page represents a happy grouping of two different types of plants in the rock garden. In the foreground the dainty little blue Bellflower, *Campanula portenschlagiana*



THE WALL BELLFLOWER (*CAMPANULA PORTENSCHLAGIANA*) EFFECTIVELY GROUPED WITH DWARF HYBRID PINK.

or *C. muralis*, is tumbling in flowery masses over the faces of large boulders, while, higher up, hybrid Pinks of the smaller sections provide a carpet of glaucous grey foliage, freely bedecked in the latter days of May and during June with flowers of varying shades of pink. The *Campanula* is one of the best of a large family for the rock garden, or for the interstices of dry walls or paved footways, making dense tufts of green foliage that are attractive from spring till autumn. It appreciates a rather sunny situation and good moist loam that contains a fair percentage of leaf-mould. The hybrid Pinks, in common with most of the race, thrive in rather poor calcareous soil.

SOME GOOD GREENHOUSE CLIMBERS.

THERE are many greenhouses, especially lofty structures, and what are generally termed conservatories that might be made much more attractive by the judicious employment of climbers. Bare walls could be covered, pillars clothed, and ironwork supporting the roof could also be covered, with charming effect. Some gardeners object to climbers on the score of insect pests, particularly mealy bug; but the enthusiastic grower will not be daunted by such trifles, and really they are nothing more, providing the plants are well grown and they are not allowed to become unwieldy, entangled examples of sheer neglect.

Where a large space has to be covered, the best results will be obtained by planting the climbers in a prepared border, but in many instances those grown in pots will suffice. For the majority the ordinary potting mixture of loam, leaf-soil and sand is recommended, and little difficulty will be experienced in regard to cultivation if the plants are not allowed to become dry at the base. When first brought into the greenhouse it is advisable to carefully train each shoot until the allotted space is filled, then the shoots can be permitted to take their normal course to a certain extent. The pruning consists of thinning out the weak shoots and cutting back the stronger ones to the prescribed area, and it is usually carried out immediately after flowering. The syringe should be employed on all favourable occasions, and whenever possible a solution of some reliable insecticide may be used. A suitable opportunity usually presents itself when the plants on the stages are removed or rearranged.

A Selection of Climbers. —

There are quite a series of these useful subjects, some of which produce most beautiful flowers. Taking them in more or less alphabetical arrangement, the first to receive notice will be the Bignonias, a group of vigorous climbers that require a light, sunny position to secure a full crop of bloom. *B. capensis*

has clusters of orange scarlet flowers, which are very attractive; *B. Cherere* is orange colour, and *B. speciosa* pink, stained with purple. *Brachysema acuminata* is a good pillar plant with red flowers, and the popular *Bougainvillea glabra*, with its rosy lilac bracts, should also be noted. The *Cestrum*s are very free flowering and suitable for pillars, and the blooms are borne in dense clusters at the apices of the growths. Three desirable kinds are *C. aurantiacum* (yellow), *C. elegans* (carmine) and *C. Newellii* (bright red). *Clematis indivisa* is an elegant climber with its loose trusses of creamy white flowers, and, for those who seek something out of the ordinary run, the *Glory*

Pea (*Clianthus puniceus magnificus*). It is a most distinct plant, of great beauty, and the bright crimson scarlet blossoms are always admired. Fuchsias are often employed with fine effect, especially such kinds as *The Shah*, *Clipper*, *Mrs. Rundle* and *Olympia*; while *Hibbertia dentata* is a pretty climber with yellow flowers. Both *Lapageria rosea* and *L. alba* should be included. *Lasiandra macrantha* (which also goes under the names of *Pleroma* and *Tibouchina*) is a hard-wooded plant with large, rich violet blue flowers. *Mandevilla suaveolens* is generally grown in the greenhouse, its large, pure white flowers being delightfully fragrant. The *Passifloras* (Passion Flowers) are greatly admired by some for their ornamental foliage and free-flowering qualities. A few of the best are *Allardii*, *cærulea*, *Constance Elliott* and *racemosa*.

Plumbago capensis, with its large heads of cobalt blue flowers, need hardly be mentioned, as it is so well known. There is a white form distinguished by the name of *alba*. The *Solanums*

also thrive in the greenhouse, where it is not so susceptible to mealy bug and scale. *Streptosolen Jamesonii* has showy trusses of bright orange flowers, and *Swainsona galegifolia* (deep red) with the variety *alba*, which have Pea-like flowers, are often seen in many greenhouses. The *Tacsonias*, which are allied to the Passion Flowers, are most beautiful climbers. *T. exoniensis* is rich carmine pink, and one of the best is the scarlet *Van Volxemii*. Several of the *Tropæolums* are excellent, and the glorious *Ipomœa Heavenly Blue* should be raised from seed each year.

T. W. B.

EARLY FLOWERING OR BORDER CHRYSANTHE- MUMS.

THIS desirable race of *Chrysanthemums* is responsible for much of the brightness of the

show signs of becoming dull rather early; but if it can be arranged to replace the plants with *Chrysanthemums*, the change is invariably appreciated. To grow plants for either purpose, they should be potted up early and given an open position in order to encourage well-ripened growth. Select the best plants and use them with a view to well furnishing the receptacle, but not to the extent of hindering growth through overcrowding. There is no advantage to be gained through using soil too rich, but firm potting is essential, and feeding may commence with weak liquid manure in August. Clear water must, however, be afforded freely whenever necessary, or the plants will become disfigured through the loss of the lower leaves. As early as possible attend to staking, for, once the stakes are in position, the rest, if attended to at short intervals, takes up little time; but it results in the plants being displayed to the best advantage. For this purpose the *Massé* family and the brilliant yellow variety *Horace Martin* stand unequalled.

Planting Out.—Plants intended for purely garden purposes and rooted in March will now be well established and ready for planting out. These *Chrysanthemums* are not very exacting in their requirements; any average garden soil will suit them. But the best results are obtained where it has been lightly manured and dug over in the winter. An open position away from overhanging trees gives better plants and earlier flowers than result when the plants are obliged to grow in partial shade. Yet with the exception of lateness the older varieties are most useful for planting in positions that enjoy the barest minimum of sunshine. Previous to planting, the surface soil should be broken up with the fork and afterwards made fine with the rake. Each plant should be allowed a space of 2 square feet, and the soil around the roots should be made firm, giving water, if necessary, after a neat stake has been fixed to each plant. Beyond an occasional watering in dry weather and keeping the surface soil stirred with the hoe, no other attention except that needed in tying is necessary.

Some Good Varieties.—Of varieties the following are very reliable. Most of them are at their best in September, are of good habit of growth, and possess a free-flowering nature. Some varieties are seen to advantage when disbudded, and where this style is favoured, handsome flowers may be obtained from *Countess* and *Queen of the Earlies* among the whites. *Polly* and *Mrs. J. Fielding* are good in the orange and bronze shades. Among the reds, *A'mirante*, *Crimson Polly*, *Goacher's Crimson* and *Mrs. W. Sydenham* are worthy of note. Excellent yellows will be found in *Cecil Wells*, *Cranford Yellow*, *Early Buttercup* and *Golden Glow*; while for pink varieties *Hector*, *James Bateman*, *Cranford Pink* and *Dolly Reeves* should not be overlooked. For massing and cutting in sprays, the *Massé* family and their sports are indispensable. Other notable varieties are *Roi des Blancs*, *Market White*, *Framfield Early White* and *La Nova* among those with white flowers. *Carrie*, *Leslie*, *J. Bannister* and *Champ d'Or* give a profusion of yellow flowers. Bronze shades are seen at their best in *Abercorn Beauty*, *Nina Black*, *Bronze Goacher* and *Diana*. Among the crimson shades are *Crimson Diana*, *Wells' Crimson*, *Claret* and *Ethel Blades*; while in the mauve and pink varieties *Dorothy Ashley*, *Lillie*, *Mabel Roberts*, *Perle Rose*, *Normandie* and *Patricia* are noteworthy.

F. J. TOWNEND.



THE NEW PRIMULA ADONIS THAT RECEIVED AN AWARD OF MERIT IN LONDON LAST WEEK. (See page 225.)

should be represented by *S. jasminoides*, a pretty species with clusters of white flowers slightly tinged with blue, these being borne in great profusion from spring to autumn. In favoured localities it will succeed in the open if given a sheltered position, especially in Devon and Cornwall. *S. Wendlandii* is most attractive, the lilac blue flowers being from 2 inches to 3 inches across. It is well adapted for pillars, the roof, and is a good plant for pot culture.

Smilax, whose elegant, twining stems are largely used for decorative purposes, is botanically known as *Myrsiphyllum asparagoides*. It should be trained on strings, which can be easily removed when required. The sweet-scented *Scaphanotis floribunda* is often consigned to the stove, but it will

average garden in the early autumn. When it is possible to devote a bed or a border to them, they are never seen to better advantage, and in the mixed border they are none the less attractive.

Plants in Pots.—But there are positions in many gardens where planting them in the ordinary manner would be out of the question, and yet in the autumn their presence would add much to the charm of the surroundings. Under such circumstances it is convenient to have a batch potted up, and if they are liberally treated, the results will amply repay for the trouble. Then there are often placed in positions of prominence ornamental receptacles filled with different types of bedding plants. In some cases these may

NEW AND RARE PLANTS.

FIRST-CLASS CERTIFICATES.

Brasso-Cattleya Cliftonii Fowler's Variety (B.-C. digbyana-Mossiae x C. Trianae).—A hybrid of handsome proportions and considerable beauty. The glistening white sepals are suffused pink, the large lip fringed with a small blotch of crimson purple on the front lobe and coloured yellowish in the throat. From J. Gurney Fowler, Esq., Pembury, Kent.

Narcissus Cædmon.—A lovely Poeticus variety of the highest merit. The perianth segments are very solid-looking and pure; the cup is well bordered with crimson. From Messrs. Barr and Sons, Covent Garden, W.C.

AWARDS OF MERIT.

Narcissus White King.—A Giant Leedsii of handsome size and of ivory white colour, with a suspicion of palest sulphur in the crown. This fine variety, raised, we believe, by the Rev. J. Jacob, has passed into the hands of Messrs. J. R. Pearson and Sons, Lowdham.

Narcissus Mary Copeland.—We were informed that this belongs to the double incomparabilis class. It had been removed long before closing-time, and we did not see it. From Mr. Copeland.

Narcissus Marseillaise (Poeticus).—A large and shapely flower of good substance and great purity. The crimson rim is well defined.

Narcissus Distich (Poeticus).—The flower is large and the perianth segments somewhat more pointed than is usual in the Poeticus class. These two came from Messrs. F. H. Chapman, Limited, Rye.

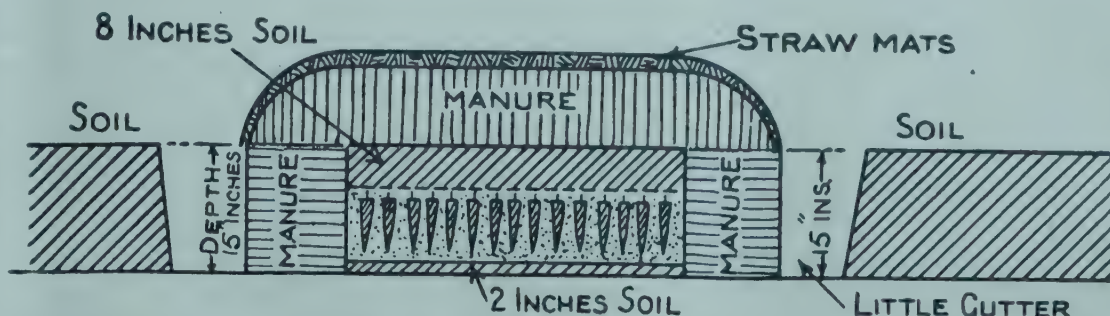
Brasso-Cattleya vilmoriniana Shrubbery Variety (Cattleya Mossiae x B.-C. Mrs. Jeeman).—The rosy purple sepals render this very distinct and beautiful. The fringed lip is reticulated with crimson and clouded with orange in the throat. From Mr. F. Menteith Ogilvie, Oxford.

Lælio-Cattleya Isabel Sander (L.-C. canhamiana alba x C. Mossiae reineckiana).—Sepals

suffused purple, throat coloured deep orange. From Sir Jeremiah Colman, Gatton Park, Reigate.

Primula Adonis.—A very beautiful sort, having a handsome truss of large and shapely blossoms of rosy purple with distinct white eye. It has all the boldness and freedom of flowering

How to Force the Roots.—On a dry and well-situated spot of the garden a trench is made about 4 feet in breadth and 15 inches in depth. At the bottom you put a bed of mould 2 inches thick. The roots are placed perpendicularly, leaving a space of 1½ inches in every direction.



SECTIONAL VIEW OF A BED FOR FORCING CHICORY OR WITLOOF. THIS IS THE SYSTEM USED EXTENSIVELY IN BELGIUM. A CHICORY PLANT IS SHOWN AT END.

and petals white and very pure; lip white, of P. intermedia, but the raiser is emphatic that it was not evolved from that source. It is a particularly good plant. See illustration page 224. From Mr. J. Douglas, Great Bookham.

Hydrangea Radiant.—The heads of bracts are of rosy red hue and showy in the extreme. It is one of the Lemoinei hybrids, and certainly the best of its colour yet seen. From Messrs. George Paul and Son, Cheshunt.

The foregoing awards were made by the Royal Horticultural Society, before whom the plants were exhibited, on April 27.

THE CULTIVATION OF CHICORY OR WITLOOF.

AS the culture of Chicory is still little known here, I thought I might be useful to my English friends by writing about a method that is quite practical for large private gardens. Chicory constitutes a savoury vegetable in the winter and spring, whether cooked whole and seasoned with juice or white sauce, or used as a salad.

Sowing Seed.—This is how one proceeds to obtain good results. Early in May one sows seed broadcast or in lines on soil that has been well prepared beforehand, and which has assimilated the fertilising properties of manure, in order to obtain roots that will be of good shape and of average size. It is preferable to sow in lines 12 inches apart and at a depth of 1 inch. As soon as the plants have four leaves, they are thinned out in such a manner that they will be 8 inches apart in the lines. This will enable the cultivator to weed and clean easily between the rows. It would be imprudent to sow before the month of May, because one would probably see the plants running to seed.

Autumn Treatment of the Roots.—Towards the end of October or during November the Chicory roots are lifted and the foliage cut away about an inch above the neck. This foliage constitutes a good food for horned cattle. For working easily a choice of roots is made, and those of an average size are taken, say, about two inches in diameter at the top. If the roots are bigger, they produce side shoots, and this makes the Chicory lose its value and beauty. If the roots are too thin, the produce will be less. At the same time, all of them must be cut to a uniform length.

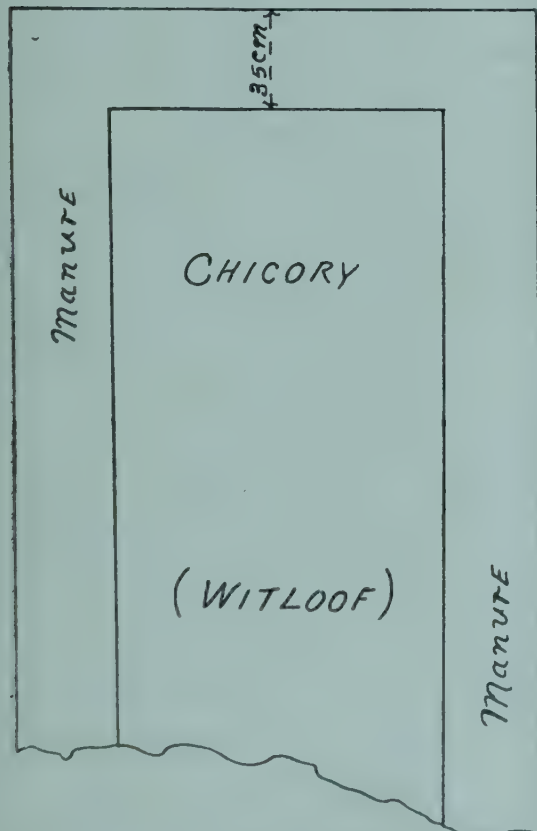
At the same time, care must be taken to put a mixture of earth and mould after each row, so that each root will be surrounded with good nutritive and well-aired ground, or the radicles of the roots will be delayed in sprouting. On this put a layer of garden soil half an inch thick which has been first sifted. If a light soil has to be dealt with, it must be pressed lightly. If it is a heavy or clayey soil, then it is useless to press, for the cones of the Chicory come forth from that which the leaves ought to assimilate in order to be able to break through the bed of earth, and the motto "Union is strength" gives a proof of this, for in any other way the scattered leaves could only break through with very great difficulty, and would have the form of cones no longer.

For forcing Chicory we put a layer of manure to a breadth of 18 inches and 1 foot in thickness, in order to produce an even temperature and so that the fermentation may be regular all over the bed. If the fermentation is thought to be too excessive, it can be ascertained by making an opening and passing the hand down the bottom of the roots, and, when a certain heat is felt, it will be as well to take away one layer of manure for four or five hours in order to cool it. After that the manure can be put back.

Chicory does not need a high temperature. Generally it is ready for picking in about a month. For this reason it is forced in batches in order to have successive crops lasting all the season. The trenches are covered with straw mats or rush mats, or even planks which have been prepared for this purpose, so as to preserve them from rain and in order to prevent the foliage decaying. To pick Chicory, the trenches are opened as far as it is necessary to gather just what is needed, and great care must be taken to cut the leaf-cones level with the neck of the roots. The roots of Chicory are a good food for cattle, and sometimes good use is also made of them in the kitchen.

For packing for distant countries it is necessary that the cones should be rolled up in paper separately, and especially to preserve them from moisture. If the package can reach its destination in one day, it is sufficient to close the basket firmly, so that the Chicory leaf-cones may not be displaced in transit. The forcing of Chicory is also carried out by means of thermo-siphon, this way of forcing being too complicated for mention here.

VICT. VANDE VELDI



PLAN OF A FORCING BED FOR CHICORY OR WITLOOF.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Early Permanent Vines.—As the bunches become ripe, the atmosphere must be kept dry, leaving the ventilators open both top and bottom at all times. If the roots require watering, afford them a moderate supply of clear tepid water. To keep the bunches in good condition as long as possible, cover the glass with a light shading. Weak limewash or two or three thicknesses of fish-netting will help to break the fierce rays of the sun. Artificial heat will now only be necessary to keep the atmosphere dry.

Midseason Vines.—Complete the final thinning of the bunches before the berries become too crowded, or the Grapes may be disfigured by rubbing. When the final thinning is done, mulch the border with rich farmyard manure; then thoroughly soak the border with tepid water. All lateral growth must now be regularly removed. Should red spider attack the leaves, sponge them with a weak solution of soft soap and sulphur.

Inarching Vines.—Any undesirable varieties may easily be replaced by inarching better sorts upon them. A shoot should be selected as near to the base of the rod as possible on which to inarch the scion. Young Vines struck from eyes last year and cut back in the winter make the most suitable scions. These are now in active growth, which is just the time for the operation to be accomplished.

Plants Under Glass.

Greenhouse Climbers.—These being now in active growth, require regular attention to the tying and regulating of the young shoots. Some will need to be severely thinned out, or the shoots will become hopelessly entangled. Light fumigations occasionally will destroy aphids, but red spider, thrips and mealy bug must be more severely dealt with. Plants growing in pots, also those which are well established in narrow, restricted borders, should be liberally fed with stimulants.

Calanthes.—Much care must be exercised with the management of these till they have become well rooted. The syringe will supply all the water necessary till the roots begin to permeate the soil. Even then water ought to be afforded with great care. A mean temperature of 65°, together with plenty of atmospheric moisture, will encourage a healthy growth. The plants must be shaded from bright sun.

Coleuses.—Pot on the young plants before they become potbound, and keep them growing in a warm house fully exposed to the sun. Keep the atmosphere moist by damping down the floors and staging frequently, but keep the foliage dry.

The Flower Garden.

Roses.—Attacks of mildew should be anticipated by regular spraying of the plants with some approved mildew specific. The same advice may also be urged in regard to aphids. Caterpillars must also be constantly watched for and picked off. A dusting of soot or guano previous to a storm will be of considerable benefit to old-established plants.

Spring-Flowering Plants.—Attention must now be directed to the propagation of plants for next season's bedding. Wallflowers may be sown thinly in drills on a well-prepared border. Polyanthuses should be sown in boxes and placed in a cold frame till the seeds have germinated. Aubrietias may be sown in frames. The named varieties are easily propagated from cuttings, which are now plentiful. The half-ripened shoots are most suitable for this purpose. Arabis is easily propagated from cuttings or by the division of the old plants. Pansies may be sown in a cold frame. Silene and Alyssum should be sown outdoors on a border which is not exposed to the full glare of the sun. Campanula pyramidalis is an excellent plant for the mixed border. Seed should be sown now in boxes and placed in slight warmth to germinate, afterwards growing the seedlings in a cold frame.

The Hardy Fruit Garden.

Outdoor Figs.—One of the chief causes of failure in regard to the culture of outdoor Figs

is that of allowing the trees to become congested with growths. Therefore all surplus shoots must be removed at regular intervals, thus allowing light and air free access to the remaining growths. Trees growing against walls or fences ought to be well supplied with moisture at the roots, giving plenty of stimulants to old-established trees.

Early Strawberry Runners.—It is an excellent plan to make a new plantation every year for the purpose of supplying early runners both for planting out and for forcing in pots. From such a plantation strong plants may be obtained for planting out in August, which will give a moderate crop of high-class fruits the following season. Plants intended for this purpose must have their flower-spikes removed; and in order to keep them free from weeds and promote a strong growth, hoe frequently between the rows.

The Kitchen Garden.

French Beans.—A sowing of an early kind can be made in pots or boxes and placed in heat. The seedlings may be planted in a cold frame, and will give a good return before those which are planted outdoors.

Cauliflowers.—The plants which were put out last month must be well supplied with water, should dry weather set in. Put out later plants when ready and keep a sharp look-out for slugs, or blanks are sure to occur. Make another sowing for the latest supplies.

Brussels Sprouts.—The earliest batch should now be ready for putting out. Plant in rows 2 feet 6 inches apart, allowing 2 feet between the plants. Thoroughly water them in and keep them well supplied with water till they are established.

Savoy Cabbages.—Another sowing of these may be made for the latest planting. Sow thinly in drills about a foot apart. If the ground is dry, water the drills before sowing. Should birds be troublesome, fish-netting ought to be placed over the seed-bed till the seedlings are well above the ground.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Beetroot.—The present time is quite early enough to sow the main crop of this vegetable. If sown earlier, the roots are very apt to become too large and coarse. For preference sow on ground which has been well treated last season, such as where Celery grew; then it will not be necessary to add manure. If sown on ground which has been newly manured, the roots are liable to grow forked and so spoil the crop.

Peas.—The sowing of late and maincrop varieties must soon be completed, as the late supply can be obtained by sowing early varieties during June. Early Peas now growing should be staked as soon as they are a few inches above the ground.

Potatoes now appearing through the soil ought to be earthed up to protect them against a possible frost. It will also get rid of any weeds which may be troublesome.

Parsley which was raised from seed sown indoors during February or March may now be planted out, allowing a distance of a foot between the plants. After planting, a dusting of soot can be given.

Broccoli.—This date is suitable for sowing late winter and spring Broccoli, particularly if it is to be grown on moderately rich ground, as plants from earlier sowings are apt to make too free and soft a growth, which does not stand the frost so well as small, hardly grown plants.

Cauliflowers.—The plants which are to succeed the autumn-sown batch should now be planted in the open. Lift carefully with all the roots possible attached, and plant with the trowel. Surround each plant with soot as a protection from slugs.

Spinach.—The autumn-sown crop can now be dug into the ground, as better quality is to be had from the crop sown in March. As the plants will be better thinned, they should be pulled for that purpose, as well as for supplying the kitchen.

Fruit Under Glass.

Early Melons.—As the fruits approach the ripening period, slightly drier conditions must prevail. Water should almost be withheld from the roots, giving only sufficient when it is necessary to prevent the plants from flagging. Much more air must be admitted on all favourable occasions. This change of conditions towards the time of ripening will prevent to a large extent the splitting and decay of fruits reaching maturity, besides helping them to develop better flavour. Sow seed now to produce plants to take the place of the early crop when it has become exhausted.

Early Vines.—As the Grapes are colouring, more air ought to be admitted, leaving a little on both top and bottom ventilators during the night, except when very cold or stormy. Although damping should not be done so frequently, an occasional damping down during bright days will do no harm, and will certainly help to keep red spider in check.

Plants Under Glass.

Primula malacoides.—For winter and spring flowering this pretty Primula should now be sown. If it is not overpotted and is watered carefully, it is simple to grow. There is now a white form; but, except that it is a change, the original coloured kind is by far the most desirable for general use.

Malmaison Carnations in 6-inch pots which are developing their flower-stalks should be neatly staked with light Bamboo canes. A top-dressing of Clay's Fertilizer or some special Carnation manure will be of assistance, and for a change of diet some weak soot-water can be given. The older plants which are in bloom need heavier shading during bright sunshine, but care should be taken that it is not overdone, or the plants will lose that healthy colour one likes to see. The stages and paths ought to be thoroughly damped down once on all fine days.

Liliums.—Bulbs which were potted a few weeks ago are now growing freely, and require top-dressing. Use good loam mixed with a little leaf-soil or peat, also sand and a sprinkling of fertiliser. Auratums and lancifoliums, to be had in flower by July and early August, require to be kept moving in a genial growing atmosphere. They should, however, not be unduly forced. Green fly, which is generally troublesome on these plants, to be kept in check must be killed either by fumigation or by spraying with an insecticide.

Tree Carnations.—When the stock of any variety is limited and it is desired to increase it, old plants may be partly shaken out of their present pots and given a slight shift. Any leggy or bare pieces of growth can be cut away to encourage as much young growth as possible near the base of the plant.

The Flower Garden.

Chrysanthemums, if properly hardened off, may now be safely planted out. There is now no end to the number of early flowering varieties, and apart from their use for making a display during the autumn, they have few equals for cutting purposes.

Antirrhinums.—Where the beds or borders are not at present occupied by spring bedding plants, it will leave less to be done later on when the rush of general bedding out takes place if the Antirrhinums are put out now, as they are quite hardy plants.

Spring Bedding.—This display will now be at its best, and notes should be taken with a view to any alterations or improvements that can be effected for another season. Where spring bedding is carried out to any large extent, the summer bedding plants must necessarily be put out rather later to allow bulbous and other plants to partly mature their growth before being disturbed.

Sweet Peas having now started to grow, after recovering from the check of being planted out, should have any protecting material removed. During wet or showery weather a sharp look-out must be kept for slugs, which are very active during the evenings. The number of growths allowed to remain on each plant ought not to exceed three if high-class blooms are expected.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

CELERIAC AND ITS CULTIVATION.

CELERIAC or Turnip-rooted Celery has for some time been cultivated in this country, but I am much surprised, considering its great value as a winter vegetable, that it is not grown much more extensively. For some years past it has been imported in very large quantities, both from France and Germany, and good prices have been realised; but as this is not likely to be the case during the present year, we should do well to avail ourselves of the opportunity of making good the deficit.

Fortunately, few vegetables are more easily grown, providing, of course, the right treatment is bestowed on it. Like Celery, it most certainly pays for liberal cultivation, and unless fair-sized, well-developed roots are produced, the crop will be of little value. An open piece of ground ought to be selected, which should be deeply cultivated and heavily manured, for preference during the winter months. The seed should be sown during March, raised in gentle heat, pricked off, treated as young Celery, and planted out about the second week in May. The surface should be broken down, raking it as level as possible. Allow a distance of from 20 inches to 24 inches between the rows, and 15 inches to 18 inches from plant to plant. Make very firm and give a thorough watering in. The crop should be constantly hoed and fresh soot frequently applied. At no time must the plants be allowed to suffer from the want of water; indeed, it is safe to say that during spells of drought it is practically impossible to give too much. The drainings from the farmyard, properly diluted, should be given occasionally. Beyond keeping down the weeds, it will occasion very little further trouble until the time of lifting, which should be done immediately the growth is completed and sharp frost is likely to occur, when it must be taken up, trimmed, and stored in sand or ashes in a cold, frost-proof place, where it will be found to keep in perfect condition all through the winter.

E. BECKETT, V.M.H.

Aldenham House Gardens, Elstree.

SPECIES TULIPS IN POTS.

AFTER a good many attempts, I have this year been able to produce blooms on *Tulipa saxatilis*, which, I believe, is more than a good many people can do from bulbs of their own growing. Different positions in my garden, and even cold frame treatment in a sunny position all the winter long and right on till flowering-time have in the past all failed to secure what I desired. In the autumn of 1913 I had a present of some collected bulbs from Mr. C. G. van Tubergen, jun., of Haarlem, part of which were planted in a cold frame and the rest potted. These latter did very little, and but very few flowered (not that the others were any better). They were, however, well looked after, and were kept under glass and fed with diluted cow-manure water until the leaves died away. They remained where they were until September, when they were repotted and consigned to a cold frame, from which they were removed to a cool greenhouse

at the end of February. This spring I have had the gratification of a good show of bloom. In addition to the collected bulbs, I bought a few other species in 1913, and the two lots were grown together.

I have entered into all this in order to suggest the suitability of the combination of cold frame and cool house treatment for species in general. Among those that have given good results under the above conditions are the following: *Tulipas Greigii*, *fosteriana*, *kaufmanniana*, *k. coccinea*, *Ingens*, *polychroma*, *montana*, *dasystemon*, *persica*, *primulina*, *biflorus*, *armena*, *præstans tubergeniana*, *Eichleri*, *Willmottii*, *saxatilis*, *Orpanidesii* and *galatica*. From each of these and from the collected species I have had blooms quite as good in all cases as, and, in *most*, better than, I had from the self-same bulbs last year. One pot of a newly collected kind labelled with me No. 1 was particularly good. It was, I believe, a yellow form of *Greigii* known as *G. aurea*, but the surprise was that three of the four bulbs in the pot were *deliciously* scented with an aroma of Lily of the Valley. One of the three might be described as overpoweringly strong. I also found some plants of ordinary *Greigii* were very sweet, and had the same scent of Lily of the Valley or *Lachenalia glaucina*. This was new to me, although I have had the same variety out of doors off and on for a long time. I wonder if I have hit upon a good way of growing these species. When I have summered and wintered them again, I ought to know for certain, as three years should constitute a reliability trial. Meanwhile I thought my experience might be of interest to growers and would-be growers of Tulips. The essentials seem to be (1) cold frame treatment in their early stages of growth; (2) cool house treatment for ripening the bulbs; and (3) extra nourishment during this latter time. These are the only differences between my former way of growing species and what has been done in the last two years. Perhaps some other growers will relate their experiences. It will be a gain if we all know an infallible method of how to flower and keep these fine plants.

JOSEPH JACOB.

FLORICULTURE IN AMERICA.

SEVERAL floral subjects of much merit have recently appeared here in America which deserve to be more widely known by English gardeners. These include, first, a superior form of *Freesia refracta alba* called Fletcher's Improved Purity.

I notice that Messrs. Mauger and Sons of Guernsey make *F. r. a. major* a synonym of Purity. The latter was first brought to general notice a few years ago by Mr. Fisher, a grower in California. At any rate, Purity and major are both large-flowered varieties, and it is a selection from Purity that Mr. F. W. Fletcher of Auburndale, Mass., has worked up, and which he now calls his Improved Purity. Mr. Fletcher, by the way, is known to readers of THE GARDEN as the raiser of *Antirrhinum Nelrose*, the bright rose pink winter bloomer, which is also a good summer flower. It was he who introduced Violet Marie Louise to commerce in the United States of America, and was instrumental in naming that plant of great commercial value here—the Boston Fern (*Nephrolepis exaltata bostoniensis*). He has a stock of 160,000 corms or bulbs of his new large

white *Freesia*, and appears to have no difficulty in selling them at a highly remunerative price. There is no doubt about the merits of his flowers. The commercial florists in the wholesale markets at Boston and New York were paying him 50 per cent. more for his blooms in February than for the best of any other grower. He advertised them to retailers at 3dol. per 100 sprays. Many of the individual blooms are fully 2 inches across the mouth, deep in proportion, glistening pure white, and very solid. They are also fragrant, but less so than the parent type. He grows them in small houses in beds or benches 5 inches deep.

The second subject that thoroughly deserves to be taken up is Mr. J. A. Peterson's new winter-flowering *Begonia* that is named in honour of his wife. Mr. Peterson was born in Denmark, and was well drilled in European ways before making his home in this country, which owes so much to European horticulturists. He and his family now conduct a floricultural business at Cincinnati, Ohio, under the style and title of J. A. Peterson and Sons. He has raised several good *Begonias* of the Gloire de Lorraine type, the two best of those first introduced being named Glory of Cincinnati and Melior. The latter is a derivative of the French word *mellieur*, and as Melior came after "Glory," the inference is that it is better. It has larger flowers and even a freer habit of blooming. *Begonia* Mrs. J. A. Peterson, the third of the series, whose parentage is stated to be *socotrana* and *Gloire de Sceaux*, is a gem indeed. Save in the pinkish or carmine edge to the neat, small leaves (of the *Gloire de Lorraine* type) and their bronzy metallic appearance, there is nothing else of *Gloire de Sceaux* evident. All the plants I have seen exhibited at several exhibitions were only 6 inches to 9 inches high, in 4½-inch and 5-inch pots, and absolutely smothered in rich crimson or deep carmine pink flowers. The flowering habit is so pronounced that the plant never can grow lax or big. It reminds me of Veitch's *Agatha*, only the colour is different and the leaves are more attractive. Mr. Peterson states that the same plants will remain presentable and, indeed, attractive from October until early in March, or even later.

Thirdly, a decorative incurved, bright silvery pink *Chrysanthemum* that all the leading growers have been exhibiting, which is named Lillian Doty, might very well be given a trial. It succeeds out of doors at Mr. Charles H. Totty's, Madison, N.J. He grows it between his span-roofed greenhouses with the hardy, early flowering decorative and Pompon *Chrysanthemums*; but it is as a pot subject that it is seen at its finest. Grown as a free-branching plant, 4½ feet high or a little more, and the terminals disbudded to one or two flowers at most, it then produces orbicular, shell pink blooms of a somewhat stellate character. It is not easy to convey a true description of these pretty blooms; but each petal has a spiky look, giving the flower its rosette, starry appearance. As a cut bloom it is exquisite, albeit quite formal, and lasts for many days even in a warm, dry sitting-room. The largest blooms have a diameter of about three inches. I believe it is generally classed as a Pompon here; but Pompons are somewhat differently understood in England and in America, just as Rembrandt Tulips are, and it is surely best described as a decorative incurved, on the lines of those of the old Rundle family.

Fourth, and lastly, Mr. William Tricker, formerly of Lady Warwick's at Dunmow, Essex,

who is now one of the leading authorities in America on aquatic plants and Water Lilies in particular, has been exhibiting blooms of the blue *Nymphaeas* all the winter, and has reason to be satisfied with the monetary returns from the sale of them to the chief retail florists in New York. I think the returns have been a dollar a dozen. These are, of course, the tender *Nymphaeas*, of which there are several species that are practically ever-blooming, at least in this country of much sunshine. These embrace *capensis*, *cærulea*, *pulcherrima* and its improved form *Pennsylvania*, and the hybrid form of *micrantha* named *daubeneyana*. These are all day-flowering *Nymphaeas*. In addition there are the white night bloomers, *dentata superba* and *d. magnifica*, also *rubra rosea*. Each of these eight blooms freely in the winter in water at a temperature not lower than 65° up to 70° Fahr., and an atmospheric temperature a little lower for preference. There has been some amount of confusion as to the distinctions of *cærulea*, *capensis* and *stellata*. The latter does not appear to be generally recognised in this country, yet the authorities at Kew place *cærulea* as a variety of *stellata*, a species that Mr. James Hudson has made widely known in the gardens at home. These matters apart, however, it seems to have been with the blue-flowered, viviparous-leaved *daubeneyana* that Mr. Tricker has been working most, using this evidently as one parent in all his crosses. The varieties he has been showing and whose flowers he has been selling are *daubeneyana*, Mrs. Woodrow Wilson (lavender blue, suffused with rose) and Panama Pacific (blue, spotted with reddish brown). These are strong growers, and they are likely to find wide acceptance.

New York.

J. HARRISON DICK.

ANSWERS TO CORRESPONDENTS.

FLOWER GARDEN.

CROWN IMPERIALS FAILING (M. L.).—We cannot understand why your Crown Imperials should fail to produce flowers, as you say that they are very healthy. The position should suit them quite well; in fact, they succeed with either a south, west or east exposure. They like rich soil of a loamy character, and should be planted from 4 inches to 6 inches below the surface of the soil. They may be lifted as soon as the stems have died down and can be replanted at once, or stored in a cool room and planted in the autumn.

TREES AND SHRUBS.

PROPAGATING RHODODENDRONS (A. Reader).—Seeds of *Rhododendrons* should be sown in February or March on the surface of sandy peat in pots or pans. If any covering of soil is given, it must only be a very light one of sandy peat. As a rule, however, the seeds are sown on the surface of the soil without covering, and a sheet of glass is placed over the pot or pan, that being covered again by a sheet of brown paper. Stand in a warm and moist greenhouse, and supply water by soaking the pans in a bucket or tub, so that the water will gradually rise through the soil. As soon as the young plants appear, remove the glass and stand the pans on a shelf near the light, taking care to provide shade from bright sun. As soon as the seedlings are large enough to handle, prick them off in pans or boxes about an inch apart each way. When 1 inch or 2 inches high, plant them in a border in rows 9 inches apart, and the plants about three inches apart in the rows. Some *Rhododendrons* can be increased by means of cuttings, those of small growth with small leaves being the most successful. Take cuttings of the current year's shoots, 3 inches to 4 inches long, in July, and dibble them into pots of sandy peat made moderately firm. Stand in a close frame until rooted; then treat them as recommended for seedlings. The vigorous-growing *Rhododendrons* can be increased by layering the lower branches into light soil. They may be pegged down any time between February and the autumn, but should not be disturbed for at least two years. Examine them after that time, and if well rooted, cut them away from the parent plants. A good layer of decayed leaves placed over the layered parts of the branches will assist in the formation of roots.

THE GREENHOUSE.

ADVICE ON GERANIUMS (Sheffield).—No wonder some of your *Geraniums* have a dried-up appearance, as they should not have been left without water all the winter. It is more than probable that some of the worst are past recovery, and it is not likely that many of the others have good, healthy roots. In this case your better way will be to shake them quite clear of the old soil and repot in some suitable compost. The good, healthy ones may be put into larger pots—that is, if the roots are vigorous; but in the case of the ailing ones, they should be put in comparatively small pots, shifting them into larger ones when the roots are active. After the plants are repotted, enough water must be given to keep the soil fairly moist, but not too wet. At this season they will do well in a house without any fire-heat. Cuttings taken from old plants now will root readily. They should be about four inches long, cut off at a joint, and dibbed into well-drained pots of sandy soil. Water should be given in moderation, and when the cuttings are well rooted they may be potted off. In future it will be as well to remember that in wintering *Geraniums* in a heated structure, enough water should be given to keep the soil slightly moist. Of course, an excess must be avoided, while, on the other hand, extreme dryness is equally injurious.

ROCK GARDEN.

PLANTS FOR WALL (C. B. A.).—Unless you favour the more diminutive alpine, a 2-feet high wall, no matter how constructed, does not admit of much scope. For effect the simpler way would be to plant from the top, using such things as *Thymes*, *Phloxes*, *Aubrietias*, double *Arabis*, *Alyssum*, alpine *Poppy*, *Linaria alpina*, *Wall-flower*, dwarf *Snagdragon*, *Thrift*, alpine *Pinks* and other plants. Some of these would grow erect and others trail to the ground. By arranging a trench-like cavity on the wall top so that the soil would be retained, planting could be done with ease and the plants be given a fair chance of success. In building so low a wall, a hollow-centred erection filled with mortar rubble, soil and grit would have been best, and, planting from top pockets, much success might have resulted. If you elect to plant it with the smaller-growing things, you might pick at will from the *Encrusted Saxifrages*, *Sedums*, *Cobweb House-leeks*, *Erinus alpinus* in variety, *Linaria pilosa*, the dwarfest alpine *Pinks* and others. Any of these would do for the sunny side, while the dwarfest *Ferns* and Mossy *Saxifrages* might be attempted on the northern side. If the wall is quite vertical and no set-back courses have been arranged to receive and retain moisture, much attention will be required after planting is done.

MISCELLANEOUS.

GOAT-MANURE, VIOLET BED, ETC. (A. L. S.).—All animal manures are good for garden purposes. If you have a quantity of the goat-manure, stack it for six months with its own bulk of soil. At the end of that time it might be used freely to all vegetable and flower crops. Permanent success with a Violet-bed is very often a question of soil and locality, though such beds are rarely allowed to stand longer than two years. The better way is to raise young plants annually, inserting cuttings in the autumn and planting out in March and April. For light soils cow-manure is best. It should be dug in well below the plants. Soot applied to the soil and dug in also is a useful fertiliser. Syringing periodically with soot-water during hot weather helps to keep red spider in check. The best early *Violets* for market purposes are given frame culture. By giving this, length of stem and clean flowers are assured. *La France*, *Princess of Wales*, *Victoria* and *Wellsiana* are the best singles; Mrs. J. J. Astor, *Comte de Brazza*, *De Parme* and *Marie Louise* the best doubles. The cloches manufactured by the Continuous Cloche Company can be obtained from Messrs. Waterer, Sons and Crisp, 10, The Arcade, Liverpool Street, E.C.

NAMES OF PLANTS.—C. C.—1, *Corydalis bulbosa*; 2, *Pulmonaria officinalis*, will grow in shade.

SOCIETIES.

ROYAL CALEDONIAN HORTICULTURAL SOCIETY.

THE usual spring show of this society was held in the Waverley Market, Edinburgh, on April 28 and 29. As was anticipated, on account of the war leading to a reduction in many garden staffs, reduced railway facilities and other cognate causes, the number of entries showed a considerable reduction, being about 400 as compared with about 470 last year. The quality, however, was of a high order, and many exhibitors must have strained every effort to exhibit in such excellent style. All reduced fares having been suspended, the attendance was naturally smaller; but, taking it all over, the show was a success, which redounded to the credit of the executive and the exhibitors. It may be mentioned that soldiers in uniform were admitted at half the usual charges.

Although of smaller numbers than usual, owing to the absence of some of the trade exhibitors from a distance, the display from the trade was of special excellence, the firms which contributed making a most effective use of the capital material they brought forward. This may be gathered from the awards made in the non-competitive section. Among the exhibits were the following:

Messrs. Storrie and Storrie, Glencarse, made one of their usual highly effective displays of fruit trees in pots,

magnificent *Cinerarias*, *Calceolarias*, *Primulas*, &c. Gold medal. A similar award was made to Messrs. Hogg and Robertson of "Holland in Ireland," Dublin, for one of their imposing groups of *Tulips*, *Narcissi*, &c., the flowers including a number of novelties of much merit.

From Messrs. Cunningham, Fraser and Co., Edinburgh, there came a capital rock garden exhibit daintily arranged with many choice alpine, dwarf shrubs, &c., including their new yellow *Rhododendron*. A gold medal was awarded to this fine exhibit. A similar honour went to a magnificent group sent by Mr. David King, Osborne Nurseries, and staged at the west end of the Market. This comprised a charming display of spring flowers, with forced plants, &c. It was well worthy of the recognition it received.

Mr. John Downie, Edinburgh, also received a premier award for a notable group of *Rhododendrons*, &c.

Messrs. R. B. Laird, Dickson and Sons, Limited, Edinburgh, contributed a capital group on the floor, this embracing *Roses*, *Hydrangeas*, and other flowering and foliage plants. A gold medal was given to this fine exhibit.

Messrs. Young and Co., Hatherley, Cheltenham, sent one of their choice exhibits of *Carnations*, which was much admired. Silver-gilt medal.

Messrs. John Forbes (Hawick), Limited, were similarly honoured for their exhibit, which was strong in *Violas*, *Primulas* and a number of other spring flowers.

Messrs. James Cocker and Sons, Aberdeen, also received a silver-gilt medal for an attractive show of alpine and other spring flowers, together with good *Roses*; and Mr. D. McLeod also had his choice group of *Orchids* honoured by a silver-gilt medal.

Messrs. Reamsbottom and Co., Geashill, Ireland, made one of their brilliant displays of *St. Brigid Anemones*, &c. Silver medal.

Mr. David W. Thomson received a silver medal for a beautiful group of *Narcissi*.

Awards of merit were given to Messrs. James Cocker and Sons, Aberdeen, for two of their new *Polyanthuses*, *Bon Accord Peach* and *Bon Accord Indigo*.

Two other non-competitive but private exhibits received the well-merited distinction of gold medals. One went to a charming variety of new *Narcissi* raised by Mr. W. G. Pirie, gardener to C. W. Cowan, Esq., Dalhousie Castle, many of them worthy to take a good place in the famous collection there; and one to Mr. R. Hindle, 17, Blacket Place, Edinburgh, for a choice and well-cultivated group of *Orchids*.

Unfortunately, the restrictions of space render it impossible to do full justice to the competitive classes, which were in most cases well contested, and included exhibits of very high quality.

Plants were excellent, Mr. S. Houlden having it all his own way in the group of *Orchids* on a space 8 feet by 8 feet.

Mr. A. Smith, The Neuk, Peebles, led for four stove or greenhouse plants; and the other pot plant classes, which comprised a brilliant display of bulbs and forced shrubs, &c., resulted in wins of first prizes by such competitors as Mr. J. A. Sword, Mr. D. Kidd, Mr. G. McKinnon, Mr. F. M. Urquhart, Mr. R. Whammell, Mr. J. R. Findlay, Mr. A. McMillan, Mr. J. Thom and many others.

Roses in pots were attractive, Mr. J. Thom carrying off the leading honours here, except for climbers, in which Mr. W. J. Galloway was first.

Astilbes, *Cyclamens*, *Calceolarias*, *Primulas* and other spring flowers were capital, and *Auriculas* were shown in greater numbers than one anticipated. Alpine plants were fine, the Dalhousie Castle collection having it all its own way in the leading class, and coming in first in that for six alpine. In the above classes the number of successful exhibitors was too great for detail.

Cut flowers made a capital display, and the same remark must apply to most of these classes. Mr. W. G. Pirie was first for twelve bunches of *Narcissi*; Mr. J. Simpson for twenty-four and twelve *Roses*.

Mr. D. Kidd led for twelve bunches of stove or greenhouse plants, and he was also awarded the first prize for a decorated dinner-table.

The only class for fruit was that for a dish of *Strawberries*, where Mr. Kidd came first with fine produce.

Vegetables were excellent for the season, Mr. J. Cossar being first with the collection. Other winners in this section were Mr. D. Kidd, Mr. W. Staward, Mr. D. Fraser, Mr. R. Stuart, Mr. J. Scott, Mr. W. Harper, Mr. W. G. Pirie, Mr. J. S. Ritchie, Mr. J. Paterson, Mr. D. A. Hill, Mr. A. Lauder and Mr. W. Brow.

The show was altogether a highly creditable one, and spoke well for the manner in which the gardeners of Scotland had endeavoured to overcome the difficulties of the situation. The arrangements of the Council and committees were excellent, and admirably carried through by their secretary, Mr. D. Mackenzie.

WARGRAVE AND DISTRICT GARDENERS' ASSOCIATION.

THE closing meeting of the spring session took place on Wednesday, April 21, when there was a good attendance of members to hear a paper by Mr. W. H. Scott, gardener to Captain Coleridge, Twyford, on "Poisonous Plants." He treated his subject in a very interesting manner, referring to a great number of plants which possessed poisonous properties in a more or less degree. He directed attention to some of our most valuable articles of food being the products of poisonous plants, but by careful cultivation they lost their poisonous qualities. A good discussion followed, and a hearty vote of thanks was accorded Mr. Scott for his valuable paper. Several exhibits were staged.

THE GARDEN.

No. 2269.—Vol. LXXIX.

MAY 15, 1915.

NOTES OF THE WEEK.

Our Sub-Editor Again Wounded in Action.—We regret to state that our Sub-Editor, Mr. H. Cowley, has again been wounded in action, and is now in hospital at Oxford. We have no particulars of his injuries, but in a postcard received from him on Monday morning he states that he was wounded in the knee while bandaging another soldier in the trenches. His address at present is Rifleman H. Cowley 2477, Surgical 7, 3rd Southern General Hospital, Oxford.

The Flowering Cherries.—One of the most beautiful effects in gardens just now is provided by the double-flowering Cherries, tall, fairly quick-growing trees, the branches of which are wreathed their whole length with large clusters of snow white blossoms. Although these erect trees are fairly common, the weeping forms of the ornamental Cherry are seldom met with. The accompanying illustration represents a comparatively young tree, yet it is sufficiently advanced to indicate what a beautiful subject it would make for planting as an isolated specimen on a lawn, or, indeed, in almost any situation where its pendulous branches would have ample room to develop. If a background of dark-leaved conifers could be provided, so much the better.

A Handsome Crab Apple.—There is an almost endless number of Crab Apples that are ornamental for our gardens at this time of the year, all of which are beautiful either in flower or fruit, or both. One that stands out among them is *Pyrus niedzwetzkyana*, a native of South-West Siberia, bearing at the present time large Apple-like clusters of rich deep purple flowers $1\frac{1}{2}$ inches to 2 inches in diameter. The richness of colour is not confined to the flowers, the young leaves and the young wood when cut also being beautiful. In the autumn the tree is very attractive with its large, dark red, conical-shaped Apples. Considered by many to be a beautiful form of *Pyrus Malus*, it was introduced into this country about twenty years ago, so that it should be more often seen than it is.

The Chelsea Show.—Following our usual custom, our next issue, dated May 22, will be a

Special Double Number. In addition to the usual features, it will contain a full illustrated report of the Royal Horticultural Society's Spring Show, to be held in the Chelsea Hospital Grounds on Tuesday, Wednesday and Thursday next. The report will be written by experts who are thoroughly acquainted with the sections entrusted to them to describe. This issue will be on sale at all bookstalls and newsagents on Thursday,

ago last March the Broom was planted in its present position, and was then a small specimen, not more than a foot high, in a 5-inch pot. It will thus be seen that it grows fairly rapidly. Although planted in rather stiff loam, this, in common with most other members of the family, will do quite well in soil composed mainly of sand.

The Rose Maggot.—This insidious pest has appeared earlier than usual this year, and already we

have found it carrying out its work of destruction in some of the earliest varieties. Its presence can be detected by the leaves, at the tops of the young shoots, being fastened together, usually with a sort of web, and presenting a crumpled appearance. Whenever this is noticed, search should be made for the grub, which is usually ensconced in the leaves, where it feeds on the flower-bud. There is no satisfactory remedy beyond this searching. If left alone, the grub will destroy the flower; hence this note of warning.

Horticulture in Belgium, France, Russia and Serbia.—For

some time past the Royal Horticultural Society has had under consideration a scheme for the restoration, as far as possible, of the horticultural industry in the countries invaded by the enemy. This has now taken concrete form, and Their Majesties the King and Queen have consented to become patrons of the War Horticultural Relief Fund. The King has opened the fund with a donation of £100, and the Royal Horticultural Society has given £1,000. Other sums subscribed up to date bring the fund up to £2,977 15s. 1d., a beginning that augurs well for the success of the scheme. Already an opportunity has presented itself for extending

a small measure of help to Serbia, and £500 has been entrusted to a Special Commissioner, who is now in Serbia and using it for assisting the horticultural needs of the small cultivators. The need for assistance will be very great, and we earnestly hope that our readers will subscribe to the fund as liberally as possible. Subscriptions should be sent to the Secretary, Royal Horticultural Society, Vincent Square, Westminster, London, S.W.



A YOUNG PENDULOUS SPECIMEN OF THE ORNAMENTAL CHERRY.
THIS IS A BEAUTIFUL TREE FOR AN ISOLATED POSITION.

the 20th inst., price twopence. As there is always a large demand, we advise readers to order well in advance any extra copies required.

A Beautiful Early Flowering Broom.—A bush of the pale yellow-flowered *Cytisus præcox* now in full flower prompts a note on its usefulness at this season. The plant in question is over four feet high and as much in diameter, its myriads of slender green shoots being so full of blossom as to make it a mound of pale gold. Three years

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

The Growth of Primroses.—The accompanying illustrations show the growth of a Primrose over the best part of four months, the photographs having been taken at half monthly intervals from January 1 to Primrose Day. Though perhaps infrequently promoted to formal cultivation, its long period of flowering, as shown in the photographs by its succession of blossoms, might make it more effective in brightening our gardens than many of the very transient blossoming plants so frequently chosen.—JOHN H. WILLIS, *Norwich*.

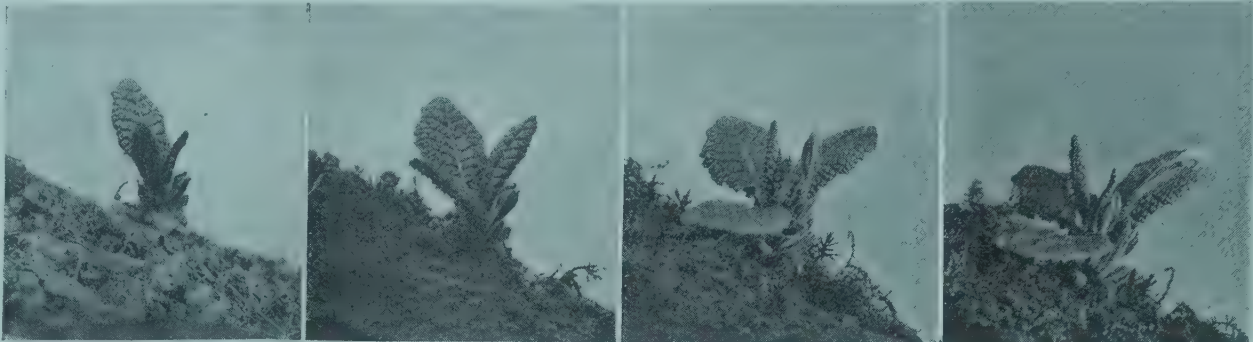
Wasps and Fruit.—Will you please allow me a little space to discuss the question of wasps? I think we all look upon such things as enemies as soon as they do us a little harm, and do not trouble to look for the good they are doing. We should ascertain what they live on all the time there is no fruit about, especially when they are bringing up their young, which they feed almost entirely on insects. Who has not seen them on various trees—especially the Plum tree when it has been badly attacked by aphids and the leaves rendered almost black—eating up the larvæ. Now, to protect fruit, get some Lyle's Golden Syrup, mix it with boiling water, put it in bottles, and place them on the trees. Be sure the mixture is a little sweeter than the fruit one wants to protect, whether it is Pear, Plum or Apricot. One will not then have cause to find fault with the wasps. I hope my gardening friends will

Wild Fritillaries.—A few more words about Fritillaries. I went into the fields the other day and found them almost stripped of flowers. Children and others were carrying them away in basketfuls, and there were hardly any blooms left. Happily, there is one place at least where they are protected, and it was a delight to see them in the meadow of Magdalen College, Oxford—

House in Stirlingshire. That such a supremely attractive garden should exist within the darkening precincts of a vast commercial city is an inspiration to the thoughts of the lover of Nature, not less than to the energies of the botanical horticulturist."

Narcissi in the Grass at Castlemilk, Scotland.—Not within many miles can one see such a grand display of Daffodils in the grass as at

Castlemilk, Lock-
erbie, the property of Sir Robert W. Buchanan Jardine, Bart. It would be rash to hazard even a guess at the number of bulbs, but it must be enormous, and they are being constantly added to. Years ago they were planted on both sides of a



THESE ILLUSTRATIONS REPRESENT THE GROWTH OF A PRIMROSE PLANT IN ABOUT SIX WEEKS.

thousands of chequered flowers, with here and there a white one. It is a drawback to have to look at them through an iron railing, but we may be grateful for its protection.—F. A. STURGE.

A Beautiful Garden in Scotland.—The Rev. David R. Williamson of Kirkmaiden writes to us as follows on May 7 from Morton Villa, Airdrie, N.B.: "Yesterday afternoon I paid a memorable visit to the gardens of Pollok House, the residence of Sir John Stirling Maxwell, which is situated in an extensive park on the very confines of 'the Second City of the Empire.' Lady Stirling Maxwell, who, like her gifted father, Sir Herbert Maxwell of Monreith in Wigtownshire, is an earnest and even enthusiastic amateur horticulturist, was fortunately at home, and showed me what I cannot but consider as the loveliest Tulip garden I have ever seen. As the sunlight at the time of my visit was brilliant, it was a veritable blaze of flower-light of varied yet grandly harmonising colours, and the effect of the sunlit vista of luminous flowers was splendidly impressive. Yet perhaps

long avenue and in many other parts of the grounds. At that time more formal planting was in vogue, and consequently the groups and masses are more often in uniform lines and groups than we would care for. Gradually, however, the troublesome and protracted task of removing and replanting in an informal way is being tackled by Mr. John Jeffrey, the gardener at Castlemilk, and some of these replanted groups are now of the most delightful kind. Annually, besides some bought and planted out at once, the Narcissi which have been forced are planted out and soon recuperate. The flowers, as a rule, are large and handsome, and there one can see, for example, the grand old trumpet variety *Horsfieldii* in superb order. Emperor, Empress, Golden Spur, *Poeticus ornatus*, Mrs. Langtry and many more of the older varieties are in great numbers, while smaller, but still large groups of King Alfred, Mme. de Graaff, Glory of Leiden and other of the newer varieties are doing well and will soon increase. 'It is no light task to lift and replant



THESE REPRESENT THE SAME PLANT AS SHOWN ABOVE IN THE LATER STAGES OF ITS DEVELOPMENT.

try this and report the results.—E. ROBINSON. [As our correspondent evidently believes in trapping wasps when the fruit is ripe, we do not see what objection there can be to killing queen wasps, and so preventing hordes later on. The good they may do while feeding their young is infinitesimal compared with the damage done to fruit.—ED.]

an even more exquisite series of artistic pictures was presented by the garden walls, completely festooned by the most effective combinations conceivable of the rarest rock and alpine flowers. A charming picture of this uniquely beautiful floral scene appears in Sir Herbert Maxwell's book on 'Scottish Gardens,' executed with pastel crayons by Miss Mary H. Wilson of Bantaskine

so many Narcissi, but Mr. Jeffrey has reason to be satisfied with the improvement he has effected in this way.—S. A.

Undesirables in the Rock Garden.—In reply to "E. B." (to whom I make my best Court curtsy for his compliment; I thought all men agreed that we "women have no sense of humour") I do not "eschew exotics," provided they thrive.

It is "feeble foreigners" I do not want. I have protected my "hedge of sorts" from my neighbour's cattle by putting Quickset against the barbed wire first. But oh! it is my own dear donkey Angelina (by name, but not by nature) who has sampled some of the "sorts." She is clever and wicked, and I could tell many stories of her misdoings, but THE GARDEN is *not* the place for stories about donkeys.—ANNE AMATEUR.

I have been much interested in the various letters on undesirable plants for rockeries. I have got a fairly large one, and my experience is that there are many places in the rock garden not quite suitable for the more delicate kinds, but which, when planted with Arabis, Aubrietias, Vinca, Cerastium, &c., result in a perfect riot of colour. I have a large, very carefully prepared moraine and other rockeries with the soil suitable for, again, other treasures; but though, these parts appeal to the eye of the collector, the ordinary everyday visitor turns away from these to the wilder side, attracted by the rich colouring and growth of the "undesirable plants." I take it the ideal rock garden is, if we take the Alps for our model, a brilliant sheet of colour, softened by the grey stone which peeps through and though we struggle and toil to make the "miffy mimps," as Farrer calls them, give that effect, the result is usually much stone and little plant. Therefore I say again that we ought not to despise easily grown plants. "A." speaks rather disparagingly of Vincas. I wonder if he has ever seen one given to me three years ago, nameless, a deep claret purple, very dwarf and of slow growth. After three years it has not covered a foot of ground. At this moment it is a mass of flower not 2 inches off the ground.—N. S. C.

I am glad to remake the acquaintance of "Alpinist" in a recent issue of THE GARDEN, and I read his letter on page 207 and his various remarks with interest. I cannot help remarking that his "vegetable doormat" of Arabis albidiflora must look remarkably fine in the early spring, so long as it is not used for the purpose of ordinary doormats! However, that is beside the point. My object in again taking pen and paper is to convince readers that Cerastium and Arabis are not undesirable plants. Your correspondent "Alpinist," I notice, speaks of them as "out-of-bound customers," and here he is quite right; but by methods previously outlined (see issue March 13, page 122) I keep these out-of-bound customers within bounds. "Alpinist" and I, it is quite clear, have different ideas on alpine gardens. I think from his letters he must reside and do rock gardening miles from any large town; but I do not know, as he does not give his address. If he does live in the country, then he will find that a very great many choice things will grow which we, who live near a large city of iron and steel works, have not the time, money or patience to grow, for so often we have failed. I find that a number of the stronger-growing Saxifrages, Sedums, alpine Phloxes, Veronicas, &c., do quite well on my pieces of rock garden; but for covering large areas and for scrambling down over the larger stones in the rock garden Cerastium tomentosum is ideal. Likewise the double Arabis. Here we have several pieces of rock garden which we cover with this, as we find it grows better than anything else here. Our worthy Editor, however, saw fit to question my remark about the double Arabis growing quicker than Cerastium; but it is true that it does. Again, with the Aubrietia.

"Alpinist" in a previous communication told us that this is not an unmixed blessing in an alpine garden. Certainly not, in a garden where everything will grow. If I lived right out in the heart of the country, far away from manufacturing towns and smoke, I should not allow Cerastium tomentosum, double Arabis, nor strong-growing Aubrietias, &c., in my rock garden. And I should also uproot some of the strongest Saxifrages, Sedum acre, S. album, and many another plant. But here it is different. We have to rely on what will grow and be very showy, and try new things as and when we can; and we keep these in bounds by cutting back, or, in the case of a few, by division in the autumn or spring. Vincas are only undesirables if they are allowed to become so. Many alpine gardeners will tell me that Alyssum saxatile is an undesirable of first merit, as it grows rather strongly; but this is used freely here by myself and other rock gardening friends, and is kept in hand quite easily. I do not believe that townsfolk (who often attempt a bit of rock garden), nor some country rock gardening folk who have no large gardening pockets, could do without these plants, and many people here would be even more sorry than I to do without Cerastium. It grows quickly, it flowers freely, and it covers up the often ugly stones of rock gardens made by those who do not know their work. I use it for covering slopes and small banks in the rock garden. With regard to Campanula rapunculoides, "Alpinist" had better write us a little article about this plant next autumn or in the spring of 1916, for I do not think any rock gardener would care to plant such a fearsome grower as this is, according to "Alpinist," without due thought and full knowledge of its colour of flower. With regard to "Alpinist's" final question, "Why will people grow these out-of-bound customers when they can get more interesting plants like Androsaces, Saxifrages, &c.?" May I point out that people do grow these and other far more interesting plants. But for covering rough rock walls, or scrambling down among the larger stones in the rock garden, or for draping a suburban wall garden, give me double or single Arabis, Aubrietia and Cerastium tomentosum.—E. T. ELLIS, *Weetwood, Ecclesall, Sheffield.*

Pollination of Hothouse Plants by Bees.—Plants in their natural habitats are usually pollinated either by means of insects or by the influence of the wind. When placed under glass, however, artificial means of pollination are resorted to, these usually being "tapping," the camel-hair brush or a rabbit's tail. Messrs. Dobbie and Co. of Edinburgh are, however, demonstrating that, even under glass, pollination can be effected by natural means. A long house filled with Cinerarias for seed production has within it at one end two hives of bees, while at the other end is a group of Hyacinths to attract the bees and keep them on the move. I am told that the bees under these conditions perform the work of pollination very effectually.—CALEDONIA.

FORTHCOMING EVENTS.

May 18.—Royal Horticultural Society. Chelsea Flower Show, Royal Hospital Gardens, Chelsea. Admission, 12—6, 10s.; 6—8, 2s. 6d.

May 19.—Chelsea Flower Show. Admission, 7—6, 2s. 6d.; 6—8, 1s.

May 20.—Chelsea Flower Show. Admission, 7—6, 1s.

FLOWERS FOR HOT, SANDY SOIL.

THE SUN ROSES.

IT is a rather curious fact in these days, when nearly everyone is more or less interested in gardening, that certain families of plants which used to be favourites with our forefathers are to a very great extent neglected and forgotten. Such an one is the Helianthemum or Sun Rose, the typical species of which is a native of our hillsides and sandy waste places. Although this in itself is nothing much to look at, its small, none too clear, yellow blossoms being very fugacious, it has given rise to many beautiful garden varieties which embrace a number of charming art shades of red, yellow, cream and white. In the early years of the nineteenth century there is little doubt that these garden forms of the Sun Rose were thought highly of and given their rightful place among other plants; but now it is the exception rather than the rule to find them in even those gardens for which they are specially adapted.

One often hears the complaint that a garden is too sun-scorched and dry to grow the ordinary kinds of plants well, and it is in just such places as these that the Sun Roses ought to be planted with a generous hand. When at their full development, they rarely attain a height of more than a foot, and where there is a hot, sandy bank, with, possibly, rocks jutting out here and there, nothing could be better adapted for clothing it. At Kew there is a fairly good collection grouped on such a bank not far from the large Flagstaff and the Berberis Dell, but I believe that in one or two private gardens, where these little dwarf shrubs have been tended with studious care, varieties are in existence that easily eclipse the best to be found at Kew. The greatest flush of blossoms is obtained towards the end of May and during June, but some flowers will be found much later in the season. Even when devoid of blossom, the neat tufts of, in many varieties, glaucous foliage are pleasing to the eye, and well in keeping with more or less arid surroundings.

Fortunately, the cultivation of Sun Roses does not call for any great amount of skill. The secret of success appears to be young plants, the most successful cultivators rarely keeping those that have been in existence four summers. For this reason frequent propagation must be undertaken. The raising of seedlings is not difficult, and by this method a great and oftentimes pleasing variation is secured among the young plants, and occasionally one that is a decided improvement on its parents. The seed ought to be sown in shallow, well-drained boxes of sandy soil as soon as ripe, generally about the end of August, the boxes being stood in a cool frame or greenhouse for the winter, so that severe frost can be kept away from the seedlings, which can be planted out the following April, preferably into a nursery bed, where they may stay for one year before going to their permanent places. The most general method of propagation, however, and one that ensures faithful reproduction of any special plant, is by means of cuttings. These are best taken early in September, and ought to consist of well-ripened young shoots slipped off with just a little heel of the older wood attached. After removing the lower leaves, these cuttings are firmly planted around the sides of small, perfectly drained pots filled with



THE RARE HARDY CHINESE SHRUB *OSMANTHUS DELAVAYII* FLOWERING IN THE GLASNEVIN BOTANIC GARDENS.

sandy soil. In turn these are plunged to their rims in ashes in a cold frame, where they remain all the winter, those that root being placed in the flowering beds in April. As the names given to varieties are by no means fixed, no good purpose would be served by giving a list here, but names and colour descriptions can be found in a few nurserymen's catalogues. Is it too much to hope that these charming and useful little hardy shrubs will once again come into vogue and find a home in the many gardens where, owing to drought and sun, "nothing will grow"? H.

NOTES FROM GLASNEVIN.

ONE of the most striking plants in flower out of doors at Glasnevin in late April was a hardy Spurge (*Euphorbia Sibthorpii*), which is one of the few members of the genus *Euphorbia* worthy of a place in the flower garden or its precincts. It is a strong-growing species, hailing from Greece, and sends up numerous sturdy stems, clothed with narrow, green leaves, to a height of about five feet. The terminal foot of each stem consists of the inflorescence, the attractive part of which is the bracts, and these, being of a bright greenish yellow, a strong plant carrying many heads is very attractive.

On the rock garden there was quite an endless variety of plants in full flower, a fine patch, several feet across, of the beautiful *Arabis brevifolia* being especially bright. At a distance this plant resembles *A. cilicica*, but its flowers are of a much richer pink, and its foliage is much greyer and more hairy. Close at hand in a peaty corner a healthy colony of *Primula Auricula Alexandra* was in full glory, each plant carrying numerous umbels

of large flowers of the clearest yellow. Here, too, *Omphalodes cornifolia*, perhaps better known as *O. cappadocica*, was just beginning to open its welcome blue flowers, and seemed to be quite as well at home in the damp peat as its neighbour *Primula muscarioides*. Carrying spikes of violet blue flowers on wiry stems some 4 inches high, this uncommon *Primula* is quite a pleasing little plant, though by no stretch of imagination can it be termed showy. It has, indeed, received an apt specific name, for the inflorescence, both in colour and appearance, closely resembles that of a *Muscari*. In the lower part of this peat-bed, and associated with a splendid clump of *Sanguinaria canadensis* in full flower, was a glorious patch of the old-fashioned *Hose-in-hose Polyanthus Sparkler*. This rather uncommon Primrose bears flowers of a bright crimson with a yellow eye, and is quite the showiest of the *Hose-in-hose* varieties.

Higher up, in a drier part of the rock garden, the delightful *Primula marginata* Linda Pope was in great beauty, its soft mauve coloured flowers being produced with the greatest freedom. The leaves of this *Primula* are of a pleasing green, and are prettily edged with a silvery powder, which gives the plant an attractive appearance even when not in flower. Several brightly coloured varieties of *P. ciliata* were flowering very freely, *P. c. superba* and *P. Mrs. J. H. Wilson* being especially good; while in a shady corner not far away, the comparatively new *P. Julia* was flowering very freely. In a shady nook, under the branches of a young Pine, a thriving tuft of *Ranunculus montanus* was in its glory. On sturdy stems, just above the tripartite leaves, this alpine Buttercup carries golden yellow flowers, each almost an inch across.

In the moraine quite a goodly selection of plants were in flower, one of the most interesting being a healthy plant of the queer-looking *Saxifraga porophyll* (*S. Frederici-Augusti*) with numerous flower-stems. The quaint little *Thlaspi limosellifolia* was at its best, while a small tuft of the rare *Saxifraga Vandellii* carrying numerous large, clear white flowers was very beautiful.

Others noted in flower included the minute *Draba imbricata*, *D. bryoides*, *Anemone Halleri* and a small plant of the rare *Primula integrifolia* with one inflorescence.

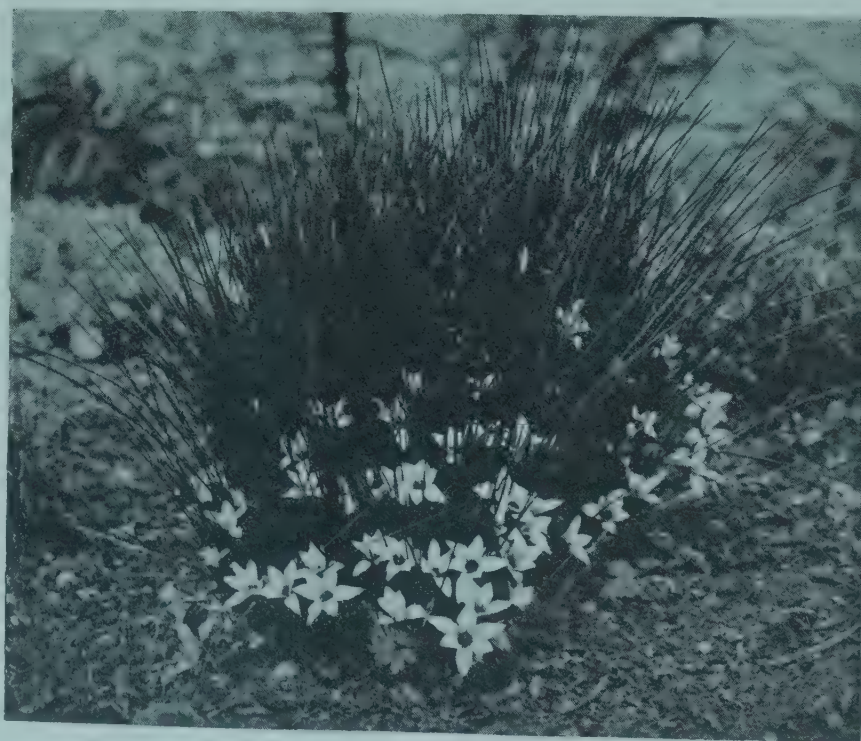
Close by the edge of the moraine a sturdy plant, some 4 feet high, of *Osmanthus Delavayii* presented quite an attractive appearance. From top to bottom this newly introduced Chinese shrub was thickly studded with clusters of clear white, tubular flowers, each about half an inch long and carried mostly at the ends of the branches. Among other peat

loving plants at the eastern side of the rock garden *Rhododendron racemosum* was flowering with the greatest freedom. This species is quite a dwarf grower, only reaching about three feet to four feet, but carries innumerable trusses of small rosy white flowers. *R. dasycarpum*, one of the many species collected by Mr. E. H. Wilson in China, was just unfolding its flowers, and the large number of unopened buds betokened a brave display for several weeks. The wide open flowers of this useful species were of a light pink, the interior of the corolla being flushed with crimson spots. A small plant of *R. flavidum* close by, about a foot high, was carrying clusters of pale primrose yellow flowers, each flower being about an inch across.

Leaving the rock garden and passing up to the herbaceous border—gay with spring flowers—a large colony of the charming *Narcissus Johnstonii* growing in short grass under the branches of a massive Larch catches the eye. Many people complain of being unable to grow this *Daffodil*, but here at Glasnevin it flowers splendidly every year, and increases steadily if slowly. The varieties *King of Spain*, with the frilled trumpet, and *Queen of Spain*, with the perfectly cylindrical trumpet, have been interplanted, and make a pleasing combination when in flower. There were, of course, a great many other interesting plants to be seen at this time, but lack of space forbids detailed mention of these. S. ROSE.

ROMULEA ROSEA.

THE fine plant of *Romulea rosea* illustrated on this page is a native of South Africa, and is growing under a south wall in the Bittell Vicarage gardens. It delights in a sunny aspect, and grows to about fifteen inches high. With its grass-like foliage and its deep rose flowers springing up from the base and clustered between its foliage it makes a fine sight during its flowering period, which is March and April. JOSEPH ETTLE.



ROMULEA ROSEA, A RARE SOUTH AFRICAN PLANT, GROWING IN CANON ELLACOMBE'S GARDEN.

DAFFODIL NOTES.

BY THE REV. JOSEPH JACOB.

THE BIRMINGHAM SHOW (Continued).

BY no means exhausted the notable flowers in my list last week. Although the number of very remarkable outstanding novelties was limited, there was a large batch, taken in the aggregate, of first-rate new varieties, all of which deserve mention.

Bridget (A. M. Wilson).—A Poet of great merit, distinguished by wide, smooth, imbricated segments and a large green eye, which has a deep red edge an eighth of an inch in width. D, $3\frac{1}{2}$; S, $1\frac{1}{2} \times 1\frac{1}{2}$; C, $\frac{1}{2}$.

White Mere (Engleheart).—A very distinct and refined Giant Leedsii. As Mrs. Robert Sydenham is to the trumpet class with regard to their coronas, so is White Mere to the Lord Kitcheners, Empires, H. C. Bowleses and others of that ilk. It passed from the hands of the raiser because it was so very much admired by the Rev. W. Wilks when first shown at Vincent Square in 1912. The corona is long and of small diameter. It is neither expanded nor flanged, and of a pale primrose. The perianth is flat and right-angled. D, $3\frac{1}{2}$; S, $1\frac{1}{2} \times 1$; C, $1\frac{1}{2} \times \frac{1}{2}$. It keeps wonderfully flat in the garden.

Felspar (Copeland).—An effective Giant Leedsii with a sharply cut, somewhat pointed ivory perianth and a yellow expanding corona. It received an award of merit for the garden. D, $3\frac{7}{8}$; S, $1\frac{1}{2} \times 1\frac{1}{2}$; C, $\frac{1}{2} \times 1\frac{1}{2}$.

Primrose Dame (P. D. Williams).—A pretty triandrus hybrid of a pleasing tone of lemon. Almost a self, but the corona is slightly deeper in shade. The whole flower is beautiful, clear and clean-looking. Diameter of the flower, $3\frac{1}{2}$ inches.

Somerset (Ware).—A deep yellow Ajax variety, large, but refined-looking. The overlapping perianth is slightly undulating, but the surfaces of the segments, which are decidedly pointed, are smooth and flat. The trumpet is flanged. D, $4\frac{1}{2}$; S, $1\frac{1}{2} \times 1\frac{1}{2}$; C, $1\frac{1}{2} \times 2$.

Melpomene (Batson).—I first saw this two years ago at the Devon Show at Barnstaple, and I was glad to renew my acquaintanceship again at Birmingham. It is a pretty, taking flower—an incomparabilis with a white perianth and a yellow cup, which is flushed with orange red, increasing in depth of colour as it nears the brim. D, 4; S, $1\frac{1}{2} \times 1\frac{1}{2}$; C, $\frac{1}{2} \times \frac{7}{8}$.

Silver Dawn (Bath).—A Giant Leedsii of excellent appearance, with a flat, pointed perianth and an expanding pale citron corona. A large flower. D, $4\frac{1}{2}$; S, $1\frac{1}{2} \times 1\frac{1}{2}$; C, $1\frac{1}{2} \times 1\frac{1}{2}$.

THE LONDON SHOW, APRIL 27.

There were a large number of Daffodils in the Hall. One could not help thinking of the corre-

sponding show last year, when there was hardly one. With the exception of such *extra* late varieties as Moonbeam, I wonder if I have ever had so many still in the bud stage on May 1. When I cut my few flowers for the Birmingham Show on April 19, I had great difficulty in getting enough good Leedsii varieties sufficiently out to gather. My experience explains the wealth of bloom on this occasion.

Messrs. Barr and Sons received a gold medal for a very fine exhibit. Now that they have two growing places, Penzance and Taplow, and also because their seedling harvest is in full swing,

and Mr. P. R. Barr. On this occasion the cup was given to Mr. P. D. Williams of Lanarth, St. Keverne, Cornwall. He was one of the first to follow in the footsteps of Engleheart and begin seedling-raising on his own account. Many exquisite varieties stand to his credit. Among them I may mention Beryl, Mrs. W. O. Wolseley, Conqueror, Seville, Tudor, Tennyson, Kestrel, Robespierre, Macebearer and Kittiwake. He is the present president of the Midland Daffodil Society. I congratulate Mr. Williams upon this recognition of his enthusiasm.

The Division of the Leedsii.—This has now received the sanction of the Council. I find there is a strong feeling to keep to the old designations, so that, although nothing was actually said about names at the committee meeting, I take it that Giant Leedsis and Leedsis will be the official titles of the two new classes.

The Disqualification of Cræsus.—The bottom of the mistake was the change of tone that takes place in so many varieties as they age. The perianth of Cræsus begins life as a yellow and ends as a primrose or even a pale primrose. "Hence the Pyramids." The committee gave Cræsus an equal first prize, and no doubt Mr. P. D. Williams will have had official notification of the same before these lines are in print. I believe it is the intention of the Council to issue a new Classified List before the end of the year, so as to bring in the new division of the Leedsii, and make some necessary alterations in the pigeon-holing; e.g., Cænone, which is a Leedsii, is now classed as an incomparabilis. It seems to me the opportunity might be taken to make a few verbal alterations in some of the definitions. In Divisions 2B and 3B the word "whitish" is too elastic, and something more definite would be better. But no doubt the matter will be thoroughly gone into when the committee meet.

AWARDS.

Eleven varieties were "up" for awards. Of these,

Cædmon (Barr), a Poet of the highest order, received a first-class certificate. It is one of the best of Engleheart's raising, and is of equal value in the garden and

on the show tiers. The eye has a well-defined rim of red. A striking flower. D, $3\frac{1}{2}$; S, $1\frac{1}{2} \times 1\frac{1}{2}$; C, $\frac{1}{2}$. See illustration on page 234

Mary Copeland (W. F. M. Copeland) first appeared at Birmingham last year, where it created a great sensation. The segments of the flower are flat and even, and the split-up corona appears in pleasing bits of coloured corona between them. It received an award of merit.

Marseillaise (Chapman).—A pretty flower of medium size with a good white Almira-like perianth. The eye is of a cool lemon tone, with a narrow rim of red. The whole is very symmetrical. D, $2\frac{1}{2}$; S, $1\frac{1}{2} \times 1\frac{1}{2}$; C, $\frac{1}{2}$. Award of merit.



NARCISSUS WHITE KING, A BEAUTIFUL GIANT LEEDSII THAT RECEIVED AN AWARD OF MERIT ON APRIL 27. (See page 234.)

they are able to "put up" a great display all through the season. Messrs. F. H. Chapman, Limited, Messrs. J. R. Pearson and Sons, Messrs. R. H. Bath, Limited, and a well-known amateur of "Kent, Surrey and Sussex" fame, Mr. J. A. Nix, all had highly meritorious collections.

The Barr Cup.—On this Tuesday the most important event to chronicle was the award of the Barr Cup, which was instituted to keep green the memory of the late Peter Barr, and is held for one year by those whom the committee considers have done special good work of any kind for the flower. The previous holders have been the Rev. G. H. Engleheart, Mr. E. M. Crosfield

Distich (Chapman).—This also received an award of merit. It certainly has a very yellow-toned perianth, so much so that I doubt if it will ever go to a proper Poeticus white. It was a striking flower in a bunch, as the majority of the broad red rims are. There was considerable discussion as to the relative merits of this variety and the last.

White King (Mallender).—A good flat Giant Leedsii, which has already been described this year, when it was shown at Birmingham in the winning twelve in the open Leedsii class and also in the single blooms, where it took second prize, beating, among others, Empire. It gained a unanimous award, and can be recommended for either showing or for the garden.

SOME OTHER NOVELTIES.

There were no very outstanding varieties staged on this occasion.

Queen of Dawn (Barr) had a perianth of a peculiar tone of pinkish buff, which looked very pronounced where the segments overlapped. The cup resembled that of Warley Scarlet. The whole flower was round and flat. D, 3; S, $1\frac{1}{2} \times 1\frac{1}{2}$; C, $\frac{3}{4}$.

Lamancha (A. M. Wilson).—A yellow, large-cupped variety—2A. The perianth was considerably lighter in colour than the cup, which was a pure yellow self, much expanded. D, $3\frac{1}{2}$; S, $1\frac{1}{2} \times 1\frac{1}{2}$; C, $1 \times 1\frac{1}{2}$.

Gothelney (A. M. Wilson).—A good long-stemmed flower with pure white petals, rather long and pointed, and a flattened corona of an unusual shade of cinnamon yellow. Division 3B. It is a fast increaser, and should prove most useful and effective for cutting. D, $3\frac{1}{2}$; S, $1\frac{1}{2} \times \frac{3}{4}$; C, $\frac{3}{4}$.

Sea Horse (Haydon).—This is not a very new variety, but so far it has not often appeared in public. It was, however, well shown by Mr. Herbert Chapman at this meeting. King Alfred is not "in it" as a show flower when "up against" Sea Horse. The two feature each other very much, but Sea Horse has a bolder and more refined appearance. The colouring is as nearly the same as it is possible to be. I like the wider flange and the broader segments, joined as they are to a delightful smoothness of texture. D, 4; S, $1\frac{1}{2} \times 1\frac{1}{2}$; C, $1\frac{1}{2} \times 1\frac{1}{2}$.

Horizon (Chapman).—One of the small, pretty little reddish-cupped flowers that always look so pleasing in a bunch with a back to it, that is, when their faces can be fully seen. The perianth is white and reflexes. The corona or cup is widely expanded, and is of a suffused orange and red colouring. D, $2\frac{3}{4}$; C, $\frac{3}{4}$.

Garden Daffodils.—I fear some readers will be saying that I have not said very much about varieties for the garden in this season's notes. I hope next week to deal with this side of the Daffodil somewhat fully.

NOTES ON CARNATIONS.

Perpetual-Flowering Varieties Outdoors.

The time has arrived when old plants of Perpetual-flowering Carnations may be planted out to bloom throughout the summer and autumn. Last year, in addition to the usual old and good sorts, I planted a large number of varieties, most of which were quite satisfactory, but none excelled or equalled for profusion of bloom Mrs.

it will well repay to plant in a compost, as the gardeners of the nineteenth century did with their choice flowers, or at least make the soil rich enough with unstimulating manure to carry the plants through the stress of July and August. It is always a safe proceeding to make the soil firm in which Carnations are planted, and in the case of old Perpetual-flowering varieties a basin should be made round the base of each plant for the reception of water, which should be applied with unfailing regularity until the plants have got a hold of the

soil. A plan that always gives satisfaction is to make this watering part of the duty of one of the men, say, every second day, at a stated hour, giving instructions as to how much is to be applied to each. These somewhat meticulous orders impress the workman with the idea that it is important not to break the rule, and he takes care not to do so; whereas a general order fails to make the same impression. Other work is not unlikely to cause him to overlook this particular task, and probably more than once, to the detriment of the plants. These produce an enormous quantity of bloom, and they have the further advantage that no better autumn cuttings are available than those from Perpetual-flowering varieties grown in this way.

Old Plants to Flower Next Winter.—In a former note I mentioned that I purposed growing on a number of old plants for next winter's flower production. A few dozen plants were cut down, and are at present breaking nicely; these will provide nice shapely plants. Others will be reduced in height as soon as the demand for flowers is over, which will not be yet, and all will be grown on with the aid of manurial dressings.

Continuity of Flowering.—It is wonderful how long a time this section of Carnations will bloom. Several nice plants which I did not care about throwing away last autumn have been producing flowers continuously since September, 1913; not small blooms either. The measures I adopted were the giving of plenty of manure to the plants and an occasional thinning of the shoots, and cutting back those which had become bare. Some plants

exhibited a sharp attack of rust in the spring. These were sprayed with a lime-sulphur solution and then syringed with clean water. The one application has kept the foliage free from further infection. Aphis is the chief cause of trouble after this, and where the plants cannot be fumigated, the best insecticide is Tobacco powder, repeating the application whenever the vanguard of the troop is observed. The plants may also be sprayed with Extract of Quassia; but I do not care to syringe young plants, and prefer the first named. Tynningham, N.B. R. P. BROTHERSTON.



NARCISSUS CÆDMON, A NEW POETICUS VARIETY THAT RECEIVED A FIRST CLASS CERTIFICATE ON APRIL 27. (See page 233.)

F. Burnett. If this has a fault, it is that it flowers too profusely. Triumph was also fine, and, for a scarlet, St. Nicholas made quite a glow. Mary Allwood, Lady Northcliffe and others of that type are all satisfactory. One serious drawback to Carnations, which extends to border sorts as well, is their inability to stand rain and a period of damp weather. Once established, they delight

Soil Preparation.—Naturally, plants that have been flowering since September must have something more substantial than ordinary soil, and

MYOSOTIS OR FORGET-ME-NOT.

THERE is never much difficulty in growing Myosotis, but the method I have now adopted for several years has given such good results that I feel justified in passing it on to fellow-growers. We usually grow somewhere about three thousand plants yearly, and, naturally, want them to be the best possible. As we have a very pleasing variety, we keep to our own stock, saving seed from them as early after flowering as possible. But this saving of the seed at home means some loss of time, which

By the end of March they nearly meet, and in a few weeks commence to flower, each plant throwing a hundred or more flower-stems. When fully in bloom they form a dense mass of blue, which looks well alone, but supremely so when forming a carpet to well-chosen varieties of Darwin Tulips.

The gathered seeds, procured as early as possible, are sown as soon as ripe in drills 1 foot apart. By sowing thinly and allowing this space between the rows, the plants may be left until planting-time, when, lifted in clumps and planted more closely than the self-sown plants, they will give almost as good a display. I rely mainly on the self-sown seedlings, but sow to make doubly sure of having sufficient. By

the last few years, has taken possession of the town of Salisbury. It is generally believed to have come from a packet of seed purchased by a lady in the usual manner at a store, and cultivated in her garden. While unable to vouch for the truth of the story, I certainly remember photographing two small clumps of it some years ago as a curiosity, which at that time represented the amount of its progress in a wild state, and at the present time it is in possession of a large portion of the vacant ground. Its phenomenal growth is all the more interesting in the fact of its not being a native of this country, its true home being South America. At the commencement of its career here it consisted of a mixture of white, pink and red blooms, but



COSMOS NATURALISED BY THE ROADSIDE IN SOUTH RHODESIA.

tells on the size of the plants by bedding-time. By leaving the plants in the bed till the end of May, they naturally seed themselves, and after the summer plants are put in the beds the seedlings will be found coming up in various parts. These are carefully guarded from the hoe until they are of sufficient size for removal. They are then taken up and planted in lines on a piece of vegetable ground vacated by early Potatoes. I usually make the rows 1 foot apart, but a considerable saving of space could be effected by setting the rows 6 inches apart and missing out every tenth or twelfth row. Here they will make large yet compact plants, and will bear putting into the beds in October or November at a distance of 12 inches to 15 inches apart.

pulling out white forms and those of undesirable habit, I have now a variety which comes fairly even in character of growth and time of commencing to flower. WILLIAM F. ROWLES.

COSMOS NATURALISED IN RHODESIA.

THE following letter and accompanying illustration appeared recently in *Country Life*. They will, we think, prove interesting to many of our readers who are acquainted with Cosmos as grown in this country:

"I am sending by this post a photograph of the ordinary garden flower, Cosmos, which, during

during its rapid progress the red blooms have died out to a great extent. It has for years been cultivated at the Cape as a garden flower, but has never been known to extend to the surrounding country.—H. J. RUMBLE, *Salisbury, South Rhodesia*.

"[The letter and illustration sent by our correspondent are most interesting. *Cosmos bipinnatus* has for many years been grown as a garden plant in this country, but as it does not commence to flower until late in the autumn, when it is quickly killed by frost, it is not a favourite. During recent years an early flowering race has been obtained, and these are very useful plants in England. We have not, however, heard of them becoming naturalised.—Ed.]"

THE MODERN SNAP- DRAGON.

HERE is a subtle charm about the Snapdragon or *Antirrhinum* that only a few other hardy flowers possess. As a flower, it is by no means a new-comer to our gardens, because it was well known to Gerard as long ago as 1597, though it is true he only mentions four varieties in his historical Herbal. Illustrations of the flower in those remote days, and in the later days of Parkinson, show us that the upper petal was very pointed and the lip or lower petal much narrower than they are in the numerous varieties that grace our gardens to-day. Of popular names the *Antirrhinum* has enjoyed many, and about

quickly occupy as proud a position in our gardens as the ubiquitous Sweet Pea. Although the value of these plants for the outdoor garden has long been recognised, and particularly where the soil is poor, or for the tops and crevices of old walls, they have not until the last year or two been regarded as flowers for the conservatory. A splendid group, exhibited at one of the Royal Horticultural Society's fortnightly meetings in 1913, had been flowered under glass, and since then quite a number of exhibits have been staged. It is true the spikes are rather longer than one would wish, but this difficulty could be overcome by growing the dwarf or Tom Thumb section. An interesting point about the flower-spikes grown under glass is that the lower flowers are retained until those almost at the top of the spike have fully opened. This is stated to be due to the fact that bees are not allowed

the seed, and the whole then well rammed into the crevices of the wall and kept watered until the seedlings are fully established. In early autumn seed may also be sown in a bed to provide plants for flowering early the following summer, though most gardeners prefer to sow in slight artificial heat at the end of January or early in February, and thus secure plants for placing in beds and borders towards the end of May. Although the Snapdragon is strictly a perennial plant, it is usually grown as an annual or biennial on the lines before indicated. If it is desired to keep old plants over the winter, they ought not to be cut down during the autumn, but left with their tops intact. The soft, unripe shoots will be killed by frost; but if these are pruned away in spring, the hard, woody branches will quickly break into new growth and commence to flower some time in advance of the spring-sown seedlings. As a rule, however, the

flower-spikes from these old plants are not so large and bold as those from young ones. In the days of long ago the Snapdragon was largely increased by means of cuttings, these being made from young shoots in early autumn. Such care is now taken in saving seed, however, that this course is not necessary, except in very special circumstances, as all good colours can be relied upon to come true from seeds. Moreover, seedlings usually possess greater vigour than plants raised from cuttings. As already stated, varieties are now exceedingly numerous; but it may be useful to mention a few that are specially good. If I were allowed to grow only one Snapdragon, it would be Cottage Maid. Its flowers are a delightful combination of rose pink and white that reminds me forcibly of Apple blossom. Moonlight has flowers of apricot yellow flushed with red; and other excellent sorts are Brilliant (vivid carmine), Crimson King (rich glowing crimson), coccinea (brilliant scarlet), Yellow Queen and White Queen. All belong to the tall or intermediate section, and all look very charming when cut and placed under artificial light. In the North of England and Scotland varieties with striped flowers are largely grown for exhibition; but in Southern districts preference is given to those of less bizarre appearance.

S. X.



A NOBLE SPECIMEN OF THE WILD CHERRY GROWING IN CUMBERLAND.

1688 it was generally known as Calf's Snout, later variations being Lion Snap, Toad's Mouth and Cat's Eye. Unlike a great many other flowers of olden days, the Snapdragon was not considered to possess any special medicinal properties, though in some rural districts it was regarded as a charm against supernatural powers.

With such a history it is little wonder that the modern forms of the Snapdragon find a happy home in most good gardens. Apart from their old-world associations, the plants give us flowers over a very long period, a point that gardeners of olden days considered to be the best reason for growing them on an extensive scale. In quite recent years hybridists have given us some very beautiful and wonderful art colour shades, and if only they could impart a pleasing fragrance to the blossoms, the modern Snapdragons would

access to them, a point that all good cultivators will fully appreciate.

But, after all, the modern Snapdragon is essentially a plant for the outdoor garden, and those who would have a brilliant display next autumn should secure plants without delay. A great many good nurserymen supply well-rooted and thoroughly hardened seedlings suitable for planting in beds and borders, and the present is an excellent time to put them in. Rich, heavily manured soil must be avoided. The Snapdragon flowers best on rather poor soil that contains some old mortar or lime, and in preparing the bed it is advisable to incorporate some of this with the soil. A foot apart each way is a good distance for the plants. For old walls it is much the best to sow seeds, any time during August or early September being the best period of the year for this. A little good soil should be mixed with

preference is given to those of less bizarre appearance.

A LARGE SPECIMEN OF THE WILD CHERRY.

ONE of the most beautiful of our native trees is the wild Cherry or Gean, *Prunus Cerasus* or *Cerasus vulgaris*. The accompanying illustration represents one of the largest specimens we have seen. This is growing in Cumberland, two miles north-east of Penrith, and when in full bloom is a very beautiful sight. The girth of the trunk 5 feet from the ground is 9 feet, this being practically the same thickness from the earth up to 12 feet, at which point the branches emanate. This wild Cherry is supposed to be one of the parents of our cultivated fruits.

POND WEEDS AND COPPER SULPHATE.

DURING the last fortnight we have had numerous requests for particulars of destroying weeds on ponds, and we therefore reprint an article on the subject that appeared in our columns a year or two ago. "For several years past a considerable amount of trouble has been caused by the presence of a slimy-looking scum upon the surface of ponds, lakes, tanks and reservoirs in various parts of the country, and requests are constantly being made for information regarding a method of treatment which is likely to eradicate it without injuring Water Lilies and other aquatic plants and fish. The scum is caused by various kinds of Algæ, low orders of plant-life allied to the Sea-weeds, including species of such genera as *Anabæna*, *Spirogyra* and *Ulothrix*. It is not only in the British Isles that these or allied kinds of Algæ cause trouble, for they are prevalent on the Continent, in America, the Malay States and elsewhere. In some countries much trouble has been caused by their presence in reservoirs of water intended for domestic purposes, for, in addition to the loathsome appearance of affected water, it has frequently an abominable stench, and numerous experiments have been conducted at considerable expense with a view to obtaining a cheap method of cleansing the water without making it detrimental to animal or human life. Some of the Algæ form a considerable amount of growth below the water, and one common kind is popularly called Flannel-weed on account of its matted, thread-like growths. In the first place, people tried to rake all this growth out of the water, but that only created a temporary relief, and after a few weeks the water was as bad as ever. Neither did cleaning out lakes and pools prevent the recurrence of scum; therefore attention was directed to finding a poisonous chemical which could be applied in small enough quantities to kill the Algæ without injuring other plants, fish, animals, or human beings. A good deal of experimental work was conducted in America and other countries, the Americans, perhaps, being to the fore. As a result of these experiments it was found that the most satisfactory chemical to use was copper sulphate, and that salt has now been taken into general use for that purpose. Highly poisonous in its action, one part to 1,000,000 parts of water is sufficient to kill the Algæ, but one part in 750,000 parts of water causes no injury to Water Lilies nor to fish. In fact, the Americans report that gold-fish and minnows live indefinitely in a concentration of one part to 200,000, whereas some of the coarser kinds of fish will stand a one in 50,000 concentration, but certain delicate kinds are killed in a one to 500,000.

"Regarding its action upon animals and human beings, it is argued that in a one in 1,000,000 solution, 50 quarts of water a day would have to be drunk before an amount of copper would be absorbed to cause any unpleasant action, and that after a few hours have elapsed from the time that the copper sulphate has been used, there would be very little in suspension in the water, as a large percentage combines with the Algæ or is otherwise precipitated.

"From this there is really little to fear from the use of such a poisonous substance, providing it is used with care. In the first place, a careful calcu-

lation must be made of the holding capacity of the pond or lake to be treated. Then the weight of the water may be taken at about sixty-two and one-third pounds to the cubic foot, and the copper sulphate used in proportion. It may be applied to the water in two ways—either dissolved in a little water and sprayed over the surface of the area to be treated, or tied in a canvas bag and drawn through the water until dissolved. When spraying the surface, it is as well to keep the mixture away from the leaves of Water Lilies, or it will probably burn them; once diluted with the water, however, it does not cause harm. On no account must it be used stronger than one part in 750,000, and it is better to adopt the one in 1,000,000 concentration.

"In a Bulletin on the subject published by the American Department of Agriculture, it is said that Watercress beds are regularly treated in some parts of America without injury to the Watercress. An instance is also given of a Kentucky reservoir containing 25,000,000 gallons of water, from which in July, 1903, the smell became unbearable owing to the presence of various kinds of Algæ. This was treated with copper sulphate at the rate of one part in 4,000,000 parts of water. The Algæ was killed in two days, and the smell gradually disappeared. In addition to being used for killing Algæ, it is said that a concentration of one part in 100,000 kills typhoid and cholera germs in from three to four hours, and mosquito larvæ die in a concentration varying from one in 100,000 to one in 200,000. As a rule, about two applications a year may be expected to keep the water clean."

ROSE-GROWING IN TOWN GARDENS.

IN a former article a brief allusion was made to the benefits derived from keeping a diary of the Rose garden. The records thus obtained are both interesting and useful. Unless one has some information to guide one, it is difficult to say off-hand when a particular Rose is likely to be in flower; but by referring to one's notes, if these have been regularly kept, it is soon seen that Dorothy Perkins, for instance, should commence flowering freely between July 15 and 20. A garden in which this variety forms a chief feature will therefore be at its best about that time, and it may be advantageous to know this beforehand.

Dates of Flowering.—The flowering season of his climbing Roses is one to which the gardener looks forward with joy. Carmine Pillar is usually the first to make its appearance, about the end of May. The first week in June generally sees Alberic Barbier, Conrad F. Meyer, Aglaia and Jersey Beauty in flower, while during the second week we may expect Mrs. W. J. Grant, Tea Rambler, Tausendschön, Edmond Proust, Gardenia and a host of others. Mme. Alfred Carrière, Trier and Alister Stella Gray do not often appear before the third week of June. Blush Rambler generally flowers early in July, while Dorothy Perkins, Lady Gay, Excelsa and Hiawatha are among the last to put in an appearance about the middle of the month. The times given are, of course, merely approximate, and will vary according to the district and the aspect of the Rose garden, as well as the earliness or lateness of the season; but if the grower has kept his own notes,

two of these factors are known, while the third will seldom put one more than a day or two out in the reckoning.

Rose Mrs. Edward Mawley.—Mr. Edward Mawley has elicited the views of a number of leading growers upon "How to succeed with the cultivation of the Rose Mrs. Edward Mawley." These are given in the "Rose Annual" for 1915, and are of much interest. We learn, what most of us had long suspected, that the variety is one which goes back, and plants can seldom be kept for any length of time. It is such a beautiful Rose, and so useful to the exhibitor, that all who show, even on a small scale, will endeavour to have a plant or two. It is disappointing, therefore, to learn that the only effectual way of getting over its bad habits is by renewing one's stock. The blooms are best from maiden plants, and most of our authorities state that it is best on standard or half-standard trees. A possible explanation of its diffidence in growing is that it is one of the many delicate kinds which find our climate too cold.

P. L. GODDARD.

GAULTHERIA TRICOPHYLLA IN A WELSH GARDEN.

THIS is one of the plants which likes this moraine and never fails to produce a good crop of berries. I believe the reason why it fails in so many gardens is because it lacks natural moisture. When that is the case, plants may grow freely, but even if they flower, few, if any, berries are produced. A steep slope from west to east among large parallel slabs of slate has been the home of this Gaultheria for the last eighteen years. No sun can reach the plants except during the afternoon in June and July. In March or April I give a good top-dressing of peat and sand, and plenty of water, if necessary, from May to September. This, however, is seldom required. In March of last year I divided some very old tufts and replanted with fresh soil. The season could hardly have been more unfavourable, yet every plant produced berries in June and July. Three years ago I made a plantation in what appears to be a suitable position—the north side of rocks deeply sunk in peat. The plants could not have done better, and now cover a space of nearly 3 feet by 15 inches. In 1913 there were a few berries; in May and June of 1914, plenty of flowers, and later some berries. The berries are seldom produced until the growths are 5 inches or 6 inches in length. No seedlings have ever appeared. In 1911 and 1912 a large quantity of seed was ripened, which I distributed among various nurseries and private gardeners, but no seedlings resulted. The berries have only once been taken by birds. The wood-pigeons evidently mistook them for *Berberis Darwinii*. Another plant which has been particularly good here for about twenty years is *Pachystigma Canbyi*. I had no idea what it required in the way of soil or position, and planted it in a chink of natural rock facing east. This chink is at the most 8 inches deep, and was filled with peat or leaf-mould. The plant is protected from the sun by tall Heaths and Cotoneasters, and is now about two feet across. The tiny flowers are red. An *Aubrietia* is beyond the capacity of this garden. I have tried every sort of soil and aspect, especially during the last few years, without success.

E. CHARLES BUXTON.

Coed Derw, Bettws-y-Coed.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Planting Young Vines.—If it is intended to renew a house of Vines which are now ripening their fruits, the soil should be prepared for making the border, placing it under cover to keep it in good condition. This will greatly facilitate the work when the time arrives for doing it. The young Vines will have been rooted from eyes which were planted in pots or turves in February. If they are growing in pots, do not allow them to become potbound, but give them a shift into larger pots. This method of planting young Vines involves a considerable amount of labour during the busy season, but it has the advantage of getting them established the same year as the old Vines are taken out.

Recently Planted Vines.—Vines which were planted early in April must be encouraged to grow freely. Artificial heat must be used only at night-time or during the absence of sun. Keep the atmosphere humid by damping down the bare surfaces in the house frequently. Admit plenty of air during warm, congenial weather, but close the house early in the afternoon after spraying the foliage with rain-water. Stop the side growths at the second or third leaf, and secure them to the trellis. The leaders may be stopped when they have covered about one-third of the trellis. Young Vines which have been planted during recent years must not be overcropped. A mulch of light manure should be placed over the border to encourage roots to the surface.

Thinning Grapes.—This important work must not be delayed, as the berries swell quickly at this time of year. As soon as the bunches have set, the work should be persevered with. Some varieties ought to be more severely thinned than others. Those bunches which have a loose habit must have their shoulders looped up with raffia in order to bring out their true character.

Plants Under Glass.

Humea elegans.—Seeds of this beautiful plant may be sown now. Sow in pans of light, fine soil, and place them in moderate warmth. When the seedlings are through the soil, keep them growing steadily in a light position. Do not hasten growth by the use of too much artificial heat. This is the cause of many failures in the cultivation of this useful plant. It is a great advantage to save one's own seed, which is very plentiful when the plants have finished flowering in the autumn.

Cinerarias.—A sowing of these useful greenhouse plants may be made now. The seeds can be germinated in a house of moderate warmth, but during all stages of growth cool conditions must be provided. A good batch of the stellata type should be grown, as these have a much greater decorative value than the larger-flowered variety.

Primulas.—Another sowing of Primulas may be made now. These can be grown under slightly warmer conditions than the Cinerarias till they are established in their flowering pots, after which they may be plunged in ashes in a cold frame.

Lilium speciosum.—Batches of retarded bulbs of this beautiful Lily should be hastened into flower as they are required. They may safely be subjected to hard forcing, provided a moist atmosphere is maintained. The bulbs which are growing in cold frames will now have made sufficient growth to require the support of stakes. As the pots become filled with roots, stimulants must be afforded, increasing them in strength as growth advances.

The Flower Garden.

Plants in Tubs.—In some gardens specimen plants in tubs are used extensively in the general scheme of flower gardening. A great many species may be utilised for this purpose, notably scented-leaved and Ivy-leaved Pelargoniums. Of the former type, Clorinda is one of the best. Mme. Crousse of the latter type makes an excellent display all through the summer and autumn. These are easily established in tubs, and will last for years if given liberal treatment during the growing season. Other plants which may be used for tub gardening are Hydrangeas, sweet-scented Verbenas, Fuchsias, Myrtles, Marguerites, Calceolaria amplexicaulis and Sweet Peas.

Sweet Peas.—The staking of the plants must be done before there is danger of damage from strong winds or heavy rains. If ordinary stakes are used, the work must be done as neatly as possible. A mulch of rotten manure will be of great benefit, should a long spell of dry weather set in. The latest batch of plants must be put out as soon as they are ready, and twigs placed to each plant to support it till the permanent staking is done.

The Hardy Fruit Garden.

Peaches and Nectarines.—Where fruits have set thickly, many of those which are badly placed may be removed, but it will be unwise to do the final thinning till stoning is finished. Should the Peach leaf-blight appear, remove the affected leaves and spray the trees with Medela. During a continued spell of dry weather the trees will need water, giving plenty of stimulants to old-established trees carrying heavy crops.

The Kitchen Garden.

Seakale.—The crowns will now be growing freely, and it will be necessary to remove all the surplus growths, leaving only one to develop.

Celery.—The first batch of Celery may now be planted out. If the trenches were prepared two or three weeks ago, they will be in good condition for planting; but should the soil be loose, it ought to be made firm by treading. Give the plants a good watering after being put out, and spray them daily till they become established.

Tomatoes.—Plants intended for putting out at the end of the month must not be allowed to become starved in their pots. If they are not already potted into 6-inch pots, this should be done at once. Plants which are fruiting under glass must be liberally fed with manures. Pot on later plants and keep them growing near to the glass in a light structure. If there is the least evidence of the white fly on the plants, fumigate them with a nicotine compound.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Onions.—Any weeds appearing among the young Onions should be carefully pulled out, then the soil between the rows lightly hoed. A dusting of soot will stimulate them, as well as help to keep off any attacks from the Onion fly.

Lettuce.—Continue to make fortnightly sowings of both Cos and Cabbage varieties. To keep up a continuous supply, a few of the thinnings may be dibbled in; these will generally turn in about a week later than the plants not disturbed.

Carrots.—To ward off attacks of Carrot fly, give frequent dustings of soot in the early morning when the plants are covered with dew. Keeping the bed firmly trodden and frequently hoed is also a check to this troublesome pest.

Turnips.—Larger sowings can be made now to furnish nice, succulent roots during the summer. Snowball and the various Milan varieties are best for general garden cultivation. The Turnip fly is troublesome during most seasons, but particularly in dry ones. The best preventive is to sow the seed on a piece of ground where there is plenty of moisture; then, should the weather be very dry, watering could be resorted to as a means of keeping the crop free from this pest.

Early Globe Beet should be thinned as soon as the plants are large enough to handle, weeds must be kept down, and the ground hoed over carefully.

Chicory and Dandelion.—These two vegetables are indispensable during the winter when a regular supply of materials for salad has to be maintained. Sow now in drills 18 inches apart.

The Hardy Fruit Garden.

Strawberries.—Young plants which were late in being put out will benefit from applications of liquid manure, if well diluted. If dry weather prevails, it is very important, especially on sandy soils, to see that they never suffer from want of

water. Neglect in this matter usually shows itself in a poor crop of fruit the succeeding year.

Blossom Protection.—Plums and other stone fruits being now mostly set, any protecting material should be removed to let the fruit and foliage have all available light and exposure.

Insect Pests are numerous in many fruit gardens, and must be kept in check by timely spraying with some of the excellent mixtures so much advertised. Fruit crops can in some cases be doubled in quantity, besides being of better quality, by careful attention in this respect.

Fruit Under Glass.

Successional Vineries.—Less artificial heat will be required than was the case with earlier houses. If the vineries are closed sufficiently early to secure a good amount of sun-heat, only a moderate warmth in the hot-water pipes will be necessary—just sufficient to prevent the temperature dropping below 60°. The days being now longer, with more sunshine, there is naturally quicker evaporation of moisture from the borders. Watering must therefore be attended to in time. When possible, it is a good plan to water a Vine border, adding stimulants, just when the thinning of the Grapes is in progress or nearly completed.

The Flower Garden.

East Lothian Stocks.—If plants were raised from seed sown in January and pricked out in frames during March, they should be ready for planting where they are to flower. Maggots sometimes attack them, so that it is advisable to keep a few plants in reserve for replacing those which are lost.

Violas and Pansies should be planted where they are to form part of the summer bedding. Seed-pods must be constantly removed to encourage freedom of flowering.

Wallflowers.—Unless very small and dwarf plants are required for any special form of spring bedding, the main batch should now be sown. If the ground is very dry, it will hasten germination if the seed drills are watered before sowing the seed. Do not sow too thickly, or the plants will be injured when they are being separated for pricking out later.

Mixed Plants or Bulbs.—Where any "rogues" have appeared, either among flowering plants or bulbs, labels should be secured to them while they are in flower, to prevent them reappearing in their wrong place another season.

Roses.—The plants now growing freely will benefit from frequent hoeing, to keep the surface of the beds or borders loose. If liquid manure is available, a moist day should be chosen on which to apply it.

Herbaceous Borders.—Several plants, such as Pæonies and Anemones, should be staked before the wind is allowed to break them down. Try to conceal the stakes as much as possible, and avoid bunching up the plants, trying to leave them with as natural an appearance as possible.

Plants Under Glass.

Tuberoses.—More bulbs may be introduced into heat to succeed the early batch, remembering to water them very sparingly until growth has fairly commenced. The early batch must be kept free from green fly, which is usually troublesome.

Flower House.—Most of the forced flowering shrubs, such as Azaleas, Pyrus and Prunus, will be over, and they should be replaced by batches of Pelargoniums, Fuchsias, Campanulas in variety and Hydrangeas. Should any of these plants be infested with insect pests, they must be fumigated before removal.

Pot Roses.—As Roses for cutting will soon be available from plants growing outdoors, only sufficient plants should be kept growing indoors to keep up the supply until that time. Plants brought out from a house where they have been protected from bright sunshine by blinds will naturally suffer somewhat when they are first exposed. If possible, choose a site where they are protected from north and east winds; yet they must not be shaded in any way. They succeed best when the pots are plunged to the rims in the ground or ashes, as then the soil does not dry up nearly so quickly.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

THE HOLLY.

THERE are few gardens which Holly does not help to brighten during winter. The bright red berries ripen early, usually in September and October, and it is not uncommon, especially when a mild winter occurs, to find them hanging on the trees in March, and during the whole of the time they have been responsible for a fine display. The colour is the brightest, of course, in country places, where the atmosphere is not heavily charged with smoke; but the Holly is not at all a bad plant for town gardens. The common kind is the most conspicuous, and really the most appropriate for planting in the woodland; but there are many sorts to choose from for garden adornment.

In the case of a tree that has been grown so widely for so long a period as the common Holly, it is only to be expected that distinct breaks from the type should occur at one period or another, and such breaks have been fairly common, either in the form of sporting branches or seedlings. These breaks were taken advantage of by those concerned in commercial horticulture, especially about the end of the eighteenth century, with the result that we have had handed down a large number of garden varieties, which exhibit all sorts of peculiarities of form, habit and colouring. These varieties last century were added to, with the result that there are now about a hundred sorts to select from.

Many of these, however, are more strange than beautiful, and cannot be recommended for cultivation except in places where full collections of trees are desired. When selecting Hollies for planting, the buyer requires to give consideration to the fact that some kinds never bear fruit; that is, certain trees bear male flowers only and others female. Occasionally male and female flowers may be found on the same tree, but it is a rare occurrence. Those who wish for a select dozen fruiting varieties of the common Holly (*Ilex Aquifolium*) cannot do better than choose the following: *I. A. camelliæfolia*, a handsome shrub of pyramidal outline, with large dark-coloured leaves, armed with very few spines. *I. A. ciliata major*—this is also a green-leaved sort which has the margins edged with fine teeth. *I. A. integrifolia* is distinguished by many of its leaves being quite spineless. Unfortunately, a form of this is grown which bears male flowers only. It is indistinguishable except when in flower. *I. A. Marnockii* is a large-leaved form, *I. A. pendula* is distinguished from the type by its weeping branches, and *I. A. fructu-luteo* by its golden fruits.

Variegated-leaved varieties may be had in *argentea marginata*, *argentea marginata pendula* and *argentea medio-picta*, Handsworth Silver with silver variegated leaves, and *aurea marginata* and *aurea medio-picta* with golden variegated foliage. Useful male-flowered varieties will be found in *Silver Queen*, *Golden Queen*, *donningtonensis*, *ovata* and *laurifolia*. Among large-leaved kinds, *I. platyphylla* fruits very freely, while *Wilsonii* has handsome foliage and bright red berries, and *nigricans*, *altaclarensis* and *Shepherdii* male flowers. The foliage in each instance is, however, handsome. With this selection a garden can be enlivened through the dull days of winter and a set of handsome specimens may be developed.

W. DALLIMORE.

INSECT ENEMIES OF VEGETABLES.

TIMELY MEASURES OF REPRESSION.

THE gardener must be ever alive to the possible depredations of insect enemies, and experience will prove to him the advantage of using every phase in the cultivation of a crop for purposes of adopting some deterrent measure.

Only by such steady and sustained effort can the fullest meed of success be won. Sound as this principle is, it must not be assumed that any modification is to engender futility. There are times when, by the adoption of some specific combative measure, most far-reaching and beneficial results can be secured. This is particularly evident at this time of the year. The revival of the active phases of insect life is almost, and in many instances quite, spontaneous with that of vegetable growth. The individuals of any species are now, or will soon be, bent on the perpetuation of their kind, and where there are now thousands, there will shortly be billions. If, therefore, nothing has yet been done to anticipate and, if possible, prevent this dangerous increase where noxious insects are concerned, then prudence counsels effort in this direction without delay. What may be done now and during the next few months is indicated in connection with the most serious and very general insect pests here mentioned.

The Carrot Grub.—No vegetable crop germinates more freely or promises better in its early growth than the Carrot. At the same time, no hardy vegetable is, as far as its future well-being is concerned, regarded with more misgiving by the cultivator. So general and insidious is the pest that attacks it that a gardener may feel justifiable pride should he secure a clean crop of roots. The grub, as is generally known, is the larva of a fly which deposits its eggs near the crown of the young Carrot in May or early June, according to the climate and latitude. A good many of the combative measures recommended aim at the prevention of this egg laying by the use of liquid sprays containing such mineral oils as paraffin, carbolic acid, &c. Of these the paraffin $2\frac{1}{2}$ per cent. solution is the most effective. The spray is prepared by dissolving a few ounces of soft soap in half a gallon of boiling water, and, while boiling, stirring in $2\frac{1}{2}$ pints of paraffin. By thorough stirring a mass of butter-like consistency can be obtained, which can be dissolved and diluted as required. The merit of these unpleasant smelling sprays lies in their regular and frequent application rather than any other factor. Paraffin, a quarter of a pint to a gallon of sand or similar fine material, is found, when dusted weekly between the rows, to be useful in keeping the fly away. For simplicity and effectiveness, however, the writer has found nothing better than mulching between the rows—after a preliminary thinning and hoeing—with lawn mowings or other short organic matter.

The Onion Maggot.—This pest is not quite so general as the Carrot grub, but where it does occur it is quite as troublesome. In many districts spring-sown Onions are out of the question owing to their liability to attack, and growers have recourse to transplanting plants raised out of doors in the autumn or under glass in February. Leeks, too, are susceptible to attack. The life-history of the fly that gives rise to the maggot is practically

identical with that of the Carrot fly, and here again the most effective preventive measures are those designed to prevent egg deposition. The paraffin emulsion applied weekly as a gentle spray has been found excellent. The part usually selected for the deposition of the eggs, *i.e.*, the neck of the plant, is fully exposed to the solution, and this no doubt accounts for the effectiveness of the treatment. Many growers aim at the prevention of egg deposition by covering the bulb with fine soil. This cannot, however, improve the keeping qualities of the bulb, and a more efficient alternative would be to dust the bulbs thoroughly with soot and lime in the proportion of one part of the former to two of the latter.

The Cabbage Root Fly.—Another troublesome pest with a life-history similar to the two already dealt with, and giving rise to grubs or maggots which are particularly destructive to young Cauliflower or Broccoli. The principle of rotation seems to avail but very little in securing immunity from this pest, since plants are seriously attacked even when put out on land entirely new to the Cabbage family. The plants are often attacked in the seed-beds, and rigid examination of the seedlings should be made before transference to their cropping quarters. Liberal dustings of lime and soot, or paraffin and sand around the newly planted subjects will act as a deterrent. Without being able to vouch for it, however, it is probable that the American method of placing a disc-like collar of thick paper a few inches in diameter around the stem of the Cauliflower as close to the soil as possible would prove the superior method of keeping this pest at bay.

The Celery Leaf Fly.—The operations of the leaf-mining maggot of this fly are familiar to most growers of Celery. Though not so fatal in its effects on the plant as is the case of the insects previously noted, even a mild attack depresses physiological functions, and good quality or size cannot be expected unless combative measures are adopted. In the case of a slight attack, or where the quantity of Celery grown is not great, the crushing of the larvæ between the finger and thumb is the surest means of keeping in check a pest that is annually increasing. The larger methods aim once more at the prevention of egg deposition on the part of the female fly, and dusting the leaves with soot and lime when moist with dew, or, again, spraying with paraffin emulsion or Quassia solution, proves effective.

Of the four insect enemies dealt with, there are several generations annually; but, excepting the Celery fly, it is only the earliest or earlier that prove of serious import. The winter is passed in the pupal state in the soil, or sometimes in the refuse of the crops preyed upon.

Morpeth.

C. W. MAYHEW.

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

Office: 20, Tavistock Street, Covent Garden, W.C.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

VIOLAS DISEASED (S. W. N.).—The Violas are attacked by the fungus *Puccinia violæ*, and it would be well to remove and destroy by burning all those which show the fungus now. Spray the other plants with a rose red solution of potassium permanganate, or with Bordeaux mixture, as a precaution against the spread of the disease. The "insects" are really mites of the genus *Trombidium*, and do no harm to plants, feeding rather on animal matter.

TREES AND SHRUBS.

PEACH WITH SMALL FLOWERS (Dunkerry).—The flowers were all single, and it appears likely that the plant in question is a seedling and not a double-flowered kind at all. The curling leaves may be due to aphids, although that cannot be decided without seeing specimens.

COTONEASTERS AND PELARGONIUMS FOR INSPECTION (H. W.).—There is nothing upon the shoot of *Cotoneaster* which you send to account for the death of the plant. The green mould is not a parasite, and if the conditions are moist enough, the mould is likely to be found on any roof or post. The death of the plants may have been brought about by ungenial soil surroundings, or possibly they are attacked by scale insects, which should easily be discovered if the living shoots are examined carefully. Several scale insects occur on *Cotoneasters*. The *Pelargoniums* are suffering from having either been allowed to become too dry or having been kept in too dry an atmosphere for some time; or possibly they have been fumigated while moist or in the daytime. There is no fungus disease or insect attack present.

ROSE GARDEN.

ROSE SHOOTS DAMAGED (Dum Spiro Spero).—The Rose shoots appear to have been injured by frost or cold east winds, but fumes from tar might cause damage of this kind. We do not think dust from tarred roads likely to be damaging after the roads have been washed a few times by rain, as the detrimental constituents are either volatile substances or those soluble in water. The *Aralia* leaves are certainly looking unhealthy, and present the appearance of plants which have been attacked by red spider during their growth.

ROSE CUTTINGS IN FRAME (J. D. L., Duns).—If the cuttings are not very closely planted in the frame, the best plan would be to allow them to remain where they are, and transplant to their permanent quarters next October. Of course, in this case you would take the glass covering away as soon as spring frosts are over, and allow the little plants to obtain the natural rains. But supposing you have another frame that can take some of the plants when potted, or, better still, a cool greenhouse, you should pot the cuttings off at once, supposing they are rooted, which could be ascertained by trying one or two first. Use a sandy compost and pot into 3-inch pots, providing each with a few crocks. Be careful to pot firmly, and see that the plants have a good watering at once. By adopting this course you could, if desired, plant the Roses outdoors in July. By that time, the soil being warm, they would make rapid growth. It would be best to remove all the flower-buds as they appear this season.

THE GREENHOUSE.

PRIMULA LEAVES ATTACKED (E. W. D. B.).—The *Primula* foliage appears to have been attacked by minute insects called leaf-hoppers. These are frequently troublesome in greenhouses, disfiguring the foliage and to some extent checking growth. The best method of dealing with them is to fumigate the houses thoroughly.

MOSS ON SEED-POTS (Puzzled).—If a true moss, it is most frequently due to an excess of applied moisture, and generally to a moisture-pervaded atmosphere and to the close, ungenial conditions existing. It is also due to the presence of the seeds of the moss in the soil, which, encouraged by the moisture and close conditions, soon become active, often to the detriment of a batch of seedlings. In the case of seeds which take months or even a year to

vegetate, it is best to bake or heat the soil sufficiently to destroy animal and vegetable life, a precautionary measure which, with great care in watering and perfect drainage, usually leads to the best results. It has been found a good plan, too, to avoid watering such seed-pots overhead, immersing the pots in a pail of water to near the seed-sowing level once every week or ten days being a much better way. Then, by covering the pot with a sheet of darkened glass, you should not be troubled to any great extent.

FRUIT GARDEN.

APPLE SHOOTS FOR INSPECTION (J. J.).—Your Apple is attacked by woolly aphid or American blight. Your best plan would be to spray the tree forcibly with paraffin emulsion wherever the pest is to be seen, and repeat the treatment if necessary. The parts on the stem might with advantage be scrubbed with emulsion.

HOW TO GROW MELONS IN A FRAME (M. Hamilton).—Make the manure-heap of three parts of horse-manure and litter (straw) and one part of leaves. Let them heat, and turn over twice to let the rank heat escape. It will take two good cartloads to make the heap. It should be larger all round by a foot than the frame. The best soil to use is turfy loam, adding a quart of bone-meal to each bushel of soil. In the first place, lay a bushel of this soil in the middle of the frame, the top of it to be 10 inches from the glass. Put two plants at a distance of 4 inches apart, pressing the soil firmly all round them. Pinch out the centres of the small plants as soon as they have made five leaves. This will induce side shoots to form. Select two of the strongest from each plant and train them on the surface of the soil. As soon as these have attained a length of about fifteen inches, pinch the hearts out of them to induce them to form side shoots. It is these side shoots which will bear the flowers and fruit. As soon as you can secure three or four female flowers open on these shoots at the same time, fertilise the stigmata or centre columns of the flowers with grain pollen taken from the anthers of the male flowers. This should be done on a sunny day, when the pollen is dry. As soon as the young fruits are set, keep the frame warm by not giving too much air, and close about 3.30 p.m., after syringing the plants, to conserve the heat of the sun. Slightly open the frame again the next morning about 7.30 to admit a little air. Cover with mats when the nights are cold, and add a little more soil to the border from time to time as the soil becomes full of roots. Keep the soil moderately moist, giving less water as the fruits approach ripeness. Thin out the young shoots, to prevent overcrowding of foliage, by cutting back to within three buds of their base. The fruits should be placed on small inverted flower-pots to expose them to the light.

KITCHEN GARDEN.

POTATOES FOR INSPECTION (J. W. Y.).—The Potatoes are attacked by the skin disease called scab. Avoid too much lime in the soil in which the Potatoes are to grow. The disease in no way damages the Potatoes for use, although it injures their sale. The "greens" we do not know a name for, but they can be readily raised from cuttings.

ONIONS GOING SOFT (F. H. Bull).—The Onions are not attacked by any parasitic fungus, but have probably become soft as a result of having been grown too vigorously last year. Possibly more nitrate of soda or other nitrogenous manure was used than was wise, or the soil in which they were grown was too rich.

MISCELLANEOUS.

VARIOUS QUESTIONS (L. Harrison).—Doubtless you have given your *Niphetos* Rose too much water. Stir the soil on the surface and apply less water, but increase the temperature if possible. We find it best to sow seed of *Alyssum Carpet White* in the open ground during April and early May. The *Antirrhinums* will flower this year, though they will be a little late. Please send your full address when writing again.

GRUBS FOR NAMING (H. G. S.).—The grubs sent are those of the *St. Mark's* fly, *Bibio* sp. They rarely do much harm in gardens, though when abundant they may attack the roots of plants for a time. They usually feed on decaying vegetable matter. In any case, they will soon be turning into chrysalides, and when the flies emerge is the best time to endeavour to reduce their numbers. The two-winged flies appear about *St. Mark's* Day, but are rather late this year. They are either black or red, sluggish in their movements, and may be readily captured among flowers by the aid of a butterfly net on bright days.

NAMES OF PLANTS.—J. Lailey.—1, *Odontoglossum luteo-purpureum*; 2, *Odontodia roosefieldense*; 3, *Odontoglossum triumphans*.—A. E. L., Bowes Park.—*Cardamine trifolia*.—P. O'B.—*Pyrus floribunda atrosanguinea*.

BOOKS.

My Shrubs.*—In this book Mr. Eden Phillpotts gives an account of the shrubs grown in his garden either at the present time or in years

* "My Shrubs," by Eden Phillpotts, with fifty illustrations. John Lane, The Bodley Head; price 10s. net.

gone by, together with interesting facts concerning them which have from time to time claimed his attention.

Unfortunately, he does not tell us where his garden is situated, therefore the results of his experiments with rare and semi-tender subjects are less valuable to the general public than they would have been had he observed less secrecy in that respect. From certain observations in the text we gather that the garden of which he writes is somewhere in Devonshire, but even that favoured county offers a considerable range of climatic conditions, and it is only from the character of certain shrubs mentioned that we are disposed to imagine the garden as being situated in or about Torquay or some similarly favoured neighbourhood. Plants belonging to nearly four hundred genera are mentioned by the author; and although the book cannot lay claim to any scientific merit, it is written in such a way that people who have no knowledge of the subject will read it with interest. People, on the other hand, who have gardens in the milder parts of the country will find it a good guide in the selection of suitable shrubs.

The following gives an idea of the way in which the various genera are treated:

"*Cytisus* in a myriad forms I should welcome, but there is no room for many of these beautiful stragglers. *C. præcox*, however, is here, and *C. purpureus incarnatus*, with pink flowers, succeeds as a standard. *C. racemosus*, the fragrant, attains to great size, and appears to be perfectly hardy in our Western gardens, and *C. Ardoini*, the smallest I know, will prosper on a moraine with the least Saxifrages. *C. schipkaensis* is a little white beauty from the Schipka Pass. This I have loved and lost, for the snails loved it even better than I."

From this it will be seen that the actual descriptive information of the plants mentioned is very meagre, but, as in many other instances, the story is told in a fascinating manner. In many instances rich touches of humour are found. Thus, in writing of the flowers and spiny branches of *Colletia cruciata*, the author says, "they are sweet; but smell *Colletia* with care, or he will stab you in a tender place." *Datura* is dismissed as follows: "Over *Datura* I draw a veil. We do not get on, and are therefore better apart." The description of *Salsola* runs: "*Salsola fruticosa* lacks charm, but I am giving this new shrub rope to hang itself. It may surprise me yet." (This, by the way, is a very old shrub). About *Embothrium* the author writes: "I have no fitting place for *Embothrium coccineum*, that prince of flowering shrubs from the Andes. I think the plant did its best with me, and a very vigorous piece, 6 feet high, that came from Cornwall, flattered hope awhile in a cool corner amid things larger than itself. But *Embothrium* could not conquer the crumpled rose-leaf in his lot, and he could not tell me what it was; and so he died—I dare say of my ignorance. Thrice have I tried him; thrice have I failed with this glorious plant. But he thrives to west and east of me, reaches to arboreal dimensions, and decks himself in early summer with a flame of fire."

The book is well printed on good paper, and the numerous full-page illustrations are excellent in every way. While we cannot recommend the book to people who wish for critical information on shrubs, it may well serve to while away an idle hour, and should find a place on the drawing-room table.

THE GARDEN.

No. 2270.—VOL. LXXIX.

MAY 22, 1915.

NOTES OF THE WEEK.

Narcissus White King.—In our issue of May 8, page 225, we inadvertently credited the Rev. Joseph Jacob with being the raiser of this Narcissus. As stated in Mr. Jacob's notes on page 221, it was raised by Mr. J. Mallender, Scrooby, Bawtry, Yorks. It has not passed into the hands of Messrs. Pearson.

An Effective Combination for the Wild Garden.—How very effective some of our wild flowers look when growing among some of our well-known garden plants, particularly in the wilder parts of our gardens! At the present time a large mass of the Greater Stitchwort (*Stellaria Holostea*) growing among *Muscari* Heavenly Blue is very charming.

A Handsome Flower-Bed.—We were interested last autumn by a large bed of the beautiful *Calceolaria amplexicaulis* intermixed with *Salvia patens*, the latter making a striking contrast with its bright blue flowers against the beautiful soft lemon yellow of the former. It seems a pity that this somewhat neglected *Calceolaria* is not more often grown, for it is without doubt the best of the whole genus for bedding purposes, remaining in bloom the whole summer until destroyed by frost. Both *Salvia* and *Calceolaria* can be planted at the end of May.

The Bird Cherry.—Of our native flowering trees few are more beautiful than the Bird Cherry, *Prunus Padus*. Just now the slender branches are clothed with racemes of small white flowers, which create a beautiful effect in the more open parts of the woodlands, especially in association with dark-leaved trees. The Bird Cherry will thrive in almost any kind of soil. Its fruit, which is small, black and very bitter, was at one time used for flavouring brandy and home-made wine. The double-flowered variety is often seen in gardens, but a better form is that known as *Watereri*. This often has racemes of flowers 8 inches in length, and is a very beautiful tree.

A Rare Primula Flowering at Wisley.—During the past few days a plant of *Primula vincaeflora* has been flowering on a small rocky mound in the open at Wisley. We believe this is the first time a blossom has opened outdoors in this country, and, naturally, the plant has attracted a great deal of attention. Two pot-grown plants in flower were shown before the Royal Horticultural Society by Professor Bayley Balfour on September 23, 1913, when the species received an award of merit. The illustration on the next page gives a good idea of the shape of the flowers and character of the foliage. The bloom is pale violet in colour, deepening considerably towards the centre. Seed was collected by Forrest in 1905 in the Lichiang mountains of Yunnan, and introduced through Messrs. Bees, Ltd.

Sir Daniel Morris, K.C.M.G., D.Sc.—It is with pleasure we publish on this page a recent portrait of Sir Daniel Morris, who has for so many years taken an active interest in the Royal Horticultural Society. It was in February, 1888, when the society was in very low water, that he was elected hon. treasurer, a position he occupied until 1892, when other calls on his experience rendered it necessary for him to retire. He was one of the original recipients of the Victoria Medal of Honour in Horticulture when it was instituted in 1897, and in 1909 he was made a honorary life Fellow and also a member



SIR DANIEL MORRIS, K.C.M.G., D.SC.,
V.M.H.

of the Council, where his quiet, unobtrusive work is highly appreciated by his colleagues and the Fellows generally. At the annual general meeting of the society last year he proposed a resolution in favour of the establishment of a national research and experimental station at Wisley, work in connection with which is now being pushed forward with all possible speed. Apart from his activities in connection with the Royal Horticultural Society, Sir Daniel has been a very active worker. From 1876 to 1879 he was Assistant Director of the Royal Botanic Gardens, Ceylon; 1879—1886, Director of the

Botanical Department, Jamaica; 1886—1898, Assistant Director of the Royal Gardens, Kew; and 1898—1908, Imperial Commissioner of Agriculture in the West Indies. Since 1910 he has been president of the Bournemouth Horticultural Society, and he also occupies the position of president of the Bournemouth Natural Science Society. Just recently he has edited an illustrated natural history of Bournemouth and district, a publication that is much appreciated by residents. As though these items were not sufficient outlet for his energies, Sir Daniel is a Justice of the Peace for the County Borough of Bournemouth.

Treatment of Newly Planted Shrubs.—Deciduous flowering and evergreen shrubs that have been recently planted must be well looked after at this time of the year by affording water at the roots, should the weather be at all dry. Although they may have the appearance of being established plants and are making growth, which is frequently due to stored-up sap, this does not necessarily mean that the roots are in a state of activity. Neglect at this time often proves fatal, whereas a little assistance given means success. Newly planted evergreens will be considerably benefited by an occasional syringing of the foliage during dry weather.

Some Attractive Little Irises.—*Iris pumila* and its varieties are now very pretty with their varying shades of blue and yellow, particularly the variety *azurea*. This provides a distinct and welcome bit of colour when seen in a large group. The plants are sometimes used as an edging to walks and in other positions, where they take up very little room. *I. nudicaulis* and *I. olbiensis* are also suitable, and make up a pretty array of dwarf Irises that are both cheap and good, as well as easy to grow. They are particularly useful for the rock garden, and are easily raised from seeds, many of them flowering the following year.

A Beautiful Wallflower and Tulip Combination.—During the last fortnight we have been enjoying a rather unique combination of Wallflowers and Tulips. These are growing in a bed beneath the dining-room window. The Wallflower is Sutton's Fire King, a new and distinct shade of rich orange scarlet; and the Tulip, Miss Ellen Willmott, a pointed, primrose yellow flower. The latter was planted, at the suggestion of the Rev. J. Jacob, with some trepidation; but the effect has been very beautiful, and admired by all who have seen it. The Tulips would be better if a week earlier, as the Wallflowers were fully open nearly ten days before them. The effect is one to note now in the garden diary for use next October.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Hardenbergia comptoniana.—This spring-flowering Australian twiner is highly suitable for training up a rafter or tall pillar in the conservatory. It is a leguminous plant, and its bright purple flowers, freely borne on the slender, pendulous shoots, are suggestive of a glorified Vetch. A compost of peat and loam, with the addition of some sharp sand and charcoal, is what it likes. This plant has a good many synonyms, the most common being *Glycine comptoniana* and *Kennedyia macrophylla*.—CALEDONIA.

A Bramble for the Rock Garden.—*Rubus arcticus*, a diminutive Arctic Bramble, is a gem for the rock garden, although it is not often seen. Its dainty, rose pink blossoms are produced on slender stems a few inches high, and the small serrated leaves form an appropriate setting. *R. arcticus* is often difficult to establish, but when once at home it never fails to put forth its tiny growths upon the first signs of spring. It prefers partial shade and a moist, peaty soil; and if it is slow to start, it will usually spread by degrees annually in such a rooting medium. A light top-dressing early in the spring is beneficial, and nothing but good results will follow a light damping overhead after hot days in the summer. This cannot be described as one of the most showy plants, but it is a particularly interesting one, and its bright, bronze-tinted foliage in the autumn is not the least of its charms.—J. GARDNER.

Classes for Miniature Daffodils.—In his recent report of the late Midland Daffodil Show and of the interesting "talks" at the dinner which followed, the Rev. J. Jacob tells us that some of our Daffodil friends from the Antipodes expressed the opinion that in this country mere size of bloom received an appreciation to an extent which rather submerged refinement and other aspects of excellence, and that it would tend in a measure to counteract this tendency if at our shows we had what were termed "pigmy" classes, open only to, say, flowers not exceeding 3 inches in diameter. Undoubtedly shows have the tendency to relegate to the background many of the most charming but smaller varieties of a flower, success on the show stand being generally with the battalions of the biggest. And this holds good, more or less, all along the line, whether with Daffodils, *Chrysa themums*, and even, in a measure, *Roses*. I have seen "table decorations" at shows which at home no lady of taste, including the prize-winner herself, would tolerate upon her table. As matters stand at our shows—and one must often include the trade exhibits—little opportunity for selection of suitable varieties for purposes other than exhibition is offered to those who do not desire to exhibit, but merely to decorate their homes. And what more suitable for this purpose, and especially for our table decoration, than some of the smaller but most refined and lovely varieties, of which *Cirlet* and *Eoster* may be taken as examples? I think that there are a great many in this country who share the views of our Antipodean friends, and that the

creation of classes for these "miniature" Daffodils at our shows would add largely to a more popular knowledge and appreciation of the Daffodil outside the sphere of exhibition. Of course, precautions would have to be taken in such classes to prevent the inclusion of small blooms of known large-flowered varieties; but preventive measures to deal with this, I think, remote possibility should not be beyond the powers of an expert schedule committee.—CHARLES E. SHEA.

The Evergreen Oak (*Quercus Ilex*).—One can scarcely think of a wood or plantation, however modest its dimensions, where the good Old English Oak (*Quercus Robur*) is not represented, and in the vicinity of homesteads a few other species of the deciduous Oaks, such as the Scarlet Oak and the Hungarian Oak, are to be met with. But one seldom comes across the Evergreen Oak, of which there are a good many forms. The type *Quercus*



THE NEW PRIMULA VINCEFLORA NOW FLOWERING OUTDOORS FOR THE FIRST TIME AT WISLEY. (See page 241.)

Ilex has two qualities to recommend it: it is a true evergreen, and it can either be allowed to develop into a fairly tall tree or be so kept within bounds as to form a fine shrub. One of the best I have seen is at Granton House, Midlothian; another is at Gartmore, Perthshire.—CALEDONIA.

Garden Daffodils.—Now the dear Daffodils are, alas! nearly over for this year in my garden (where I grow forty or more of the cheaper kinds), it is a good time to take a review of them, especially as I planted no new bulbs last year, for when the war broke out in August, I, like many others, decided to forego my principal personal "wanities," which in my case are new books and bulbs and old lace. So I sternly "turned away mine eyes from beholding" book and bulb catalogues or antique curio shops. I expected, therefore, that my borders would be somewhat bare

this spring; but the old bulbs (like other "old 'uns" now) seemed on their mettle, and the garden has been almost as golden gay as usual. The three freest-flowering have been *Mme. Plomp*, *Sir Watkin* and dear old *Barri conspicuus*. Others that have also done well are *Narcissus minor*, *P. R. Barr*, *Vesuvius*, *Frank Miles*, *Autocrat* and *grandis*. Really, when I survey them all, I feel much the same as when once, in my early days, some indiscreet person asked me which of all my wide family circle I loved most. And I gasped out, "Oh! I love—I love them all best—every one, for something different from the rest."—ANNE AMATEUR.

A Noble Group of *Ailantus glandulosa*.—The *Ailantus* is now widely distributed, but it is seldom a group of this tree can be found equal to that which, till last January, could be seen at The Friars, Aylesford. The garden there was made at the end of the seventeenth century in elaborate Dutch style, then in vogue. Much has reverted to primitive Nature of late years, but the ideal situation of the garden is obvious, sloping gently to the south and closed in by high ground on the north and east, with terraces along their whole length. Yew trees now fill most of the north terrace, but the orangery still occupies the centre, while the *Ailantus* group closes in the west end. This group consisted of seven, or nine if two are counted a short distance away towards the farm. Of the latter, one has fallen, through a gale last winter, and two of those on the terrace. The average height of the whole group would be over sixty feet each. One at least was over seventy feet high. I measured two of those which had fallen, and found the girth of one at 5 feet from the ground was 8 feet 6 inches. The other at 2 feet from the ground was nearly the same. One of those still standing has a girth of 10 feet 6 inches, 4 feet from the ground. I was told they were being cut up for firewood, which is regrettable, as the timber, though light and soft, is valuable for cabinet-work and, as in these specimens, remarkably free from knots. As the *Ailantus* was introduced from China in 1751, and did not become common till the close of the century at least, the age of the *Ailantuses* at The Friars cannot be much more than 150 years. There are a few other remarkable trees at this old-world place on the banks of the Medway, once a

celebrated house of the Carmelite Friars, and, with Preston Hall on the opposite side of the river, in scenery of surpassing beauty; but with the exception of some Yews dating from before the Reformation, they were planted with the *Ailantuses*. These include a Tulip Tree, one of the largest in England, but decaying; several False Acacias of great size; a Wych Elm over sixty feet high, which is very unusual for that variety of Elm; a Cedar of Lebanon, with its lower boughs on the ground and covering a wide radius; and others.—HURSTCOT.

Dahlias on a Trellis.—A trellis running across the mixed flower garden here is furnished with climbing *Roses*, but, as is usually the case, there are always blank spaces between the plants at the bottom of the trellis. For some years past I have utilised these spaces by training up the wires surplus plants of Dahlias, and as the effect

produced has been generally admired, I pass on the suggestion. Little Othello, which the Editor recommended in his notes in *THE GARDEN* of October 17, 1914, is well represented here, and deserves to be widely cultivated. In a position such as I have indicated each plant should have a good-sized pit dug out for it, and have the benefit of a couple of spadefuls of rich compost. Dahlias here on October 19, 1914, were in almost perfect condition.—CHARLES COMFORT, *Midlothian*.

Apple Cox's Orange Pippin Grafted on Irish Peach.—Although Cox's Orange Pippin succeeds fairly well here in the heavy, cold soil, it gives a lot of trouble owing to the way the branches canker; but with care and attention this evil is combated. Some ten years ago I grafted trees of Irish Peach with Cox's Orange Pippin. They have succeeded amazingly, grown well, bear freely, and do not exhibit the slightest sign of canker. Under these conditions it is safe to assume that the double grafting of this Apple on to Irish Peach, which was formerly worked on the free or seedling stock, has a distinct advantage. Anything that can be done to increase the satisfactory production of full crops of this highly prized Apple is time well spent, as there are so few English Apples worthy of culture after the season of Cox's Orange Pippin is past.—E. MOLYNEUX, *Swanmore*.

Sparrows Attacking Gooseberry Flowers.—I read with interest the note on this subject and the letter signed "O. N. E. Another" in your issues of May 1 and May 8 respectively. I must say many of my plants have been great sufferers this season. Carnations, Pinks, Polyanthus, Violas and even Aubrietias have been attacked, and the Rock Pinks, too, have not escaped the sparrows' ravages. I have seen them this week also plucking the Apple blossoms. I am afraid it is not moisture the sparrows are after. I have for many seasons had a dish of water—a 10-inch shallow earthen pan—placed on the lawn, freshly filled every day. Thrushes, starlings, robins, tits, finches and sparrows all take advantage of this, both for drinking and bathing. I may say it is placed on the ground, and, although cats abound in the neighbourhood, it is quite evident the birds fear very little from them, as one can easily recognise the call of danger from Mr. Sparrow while Mrs. Sparrow has a drink. The birds are fed every day with crumbs, and suet is fixed upon all the fruit trees for the tits, which do no harm, but remove caterpillars galore from the trees and shrubs. For their kindness in this direction I provide some neat nesting-boxes, which they readily occupy. Thus I am afraid the sparrows are not seeking moisture when they ruin choice Carnations and other plants. It is probably the flavour of the various morsels that attracts their palates.—BIRD LOVER.

The Cultivation of *Lupinus polyphyllus*.—I have read with interest the contribution by "Garden Steward" on page 206 of your issue for May 1. I should like, however, to remark on one point, and that is that "by the autumn, when the young plants were dug up to be transplanted in their permanent quarters, they had made roots several feet long . . ." In the earlier part of his letter "Garden Steward" says, "for three summers I saved seeds, which germinated well," so presumably the seedlings which "had made roots several feet long" by the autumn were obtained from seeds sown in the summer. Of course, I do not know his soil. He does not say where he resides, but I think there must have been something more than bacteria

in the soil with which he dressed his seedlings and nursery beds, if in three or four, or even six months they developed such long roots. Our Lupines here (Sheffield) do not possess roots 2 feet long after two or three years' strong growing; but then, of course, coal measure (which, as we all know, can be very tough) underlies our soil. Moreover, might I ask your correspondent how he discovered his seedlings had roots several feet long? Here we find it very difficult work digging up a plant with roots 2 feet long, even on well-cultivated soil. Perhaps "Garden Steward" has a very light, easily worked soil, which he can trench 4 feet to 6 feet deep. Even so, to dig up seedlings with roots several feet long would be no easy matter, since a considerable portion of the adjoining land would have to be excavated first with the spade. If his soil is *very* good, I should think he might possibly get in that time roots 18 inches to 24 inches long, though this is unlikely; but the length "several feet" must be an exaggeration.—E. T. ELLIS, *Weetwood, Ecclesall, Sheffield*.

Rock Gardening.—Oh dear! It appears I have roused the rock gardeners' ire. (Can it be the "grains of truth" in my letter full of "chaff" that have so offended them?) I have chuckled wickedly at their attacks. It is great fun. To "M. H." I reply that I wrote on "rock gardening as represented by its votaries," and as an ignoramus who read their letters to obtain information. I live in the country "far from the madding crowd," so have *not* seen "many hundreds" of rock gardens, but only a few, including the large rock and water garden of a florist (well known at the Royal Horticultural Society's shows) and some three or four exhibited at the Royal Horticultural Society, which latter, I presume, show rock gardening in ideal perfection. Perhaps I have been unfortunate, for the rock gardens I have seen certainly combine to give the impression that "the game is not worth the candle." Rock gardening does seem to me to have something wrong about it. It is not frankly formal and artificial, like "bedding," which (though I do not enjoy it myself in small gardens) certainly has its place in large ones, private and public. But rock gardens, judging from many photographs and from those gardens I have seen, are more or less miserable attempts (and failures) to imitate Nature—a "make believe" (always a detestable thing). And some of the letters were horrid! Fancy the writer who has "no use for Arabis, save as a vegetable doormat"! I love its great snowdrifts—just now one of the glories of my garden—and it is simple enough to cut it well back after blooming. Its fault to him apparently was that it "grows and blows freely." If it were *hard* to grow, he would probably prize it. I grow most of the rampant herbaceous plants "M. H." names. An acquaintance who scarcely knows a Cabbage from a Cabbage Rose remarked to me, "I do enjoy the great splashes of colour in your garden." That is what I aim at. I do not like little "niminy piminy" dabs everywhere. My garden of twelve years' standing is full of masses of colour for ten months every year. It does not yet "require a pickaxe" when any plants increase beyond bounds. Why? Being so lucky as to have many gardening friends, I pack a hamper full "of sorts" and send it to someone who has a suburban garden, and who is glad to get some strong, healthy clumps of roots from Aunt Anne's country garden.—ANNE AMATEUR.

DAFFODIL NOTES.

BY THE REV. JOSEPH JACOB.

Varieties with a Garden Future.—I hasten to carry out the promise I made in my last notes and write about garden varieties. Two difficulties at once present themselves. I must not occupy my space by gilding refined gold, or, in other words, I must not write of those that have already established their reputation; and, on the other hand, I must be very careful to avoid recommending varieties about which less is known than warrants a man saying that they have a reasonable prospect of a future. In so many cases one would like to sit a little longer on the gate and watch their behaviour, for nothing is more certain in matters pertaining to horticulture than that the air above and the soil beneath that part of the earth's surface which we call a garden affect for good or ill all therein contained.

What to paint on the signpost is a serious problem. With the best intentions in the world the direction may be wrong; hence I feel one cannot be too careful in giving advice. I would like to point out one or two general considerations before passing on to deal with particular individuals. Frequently a variety, more especially in the earlier days of its existence, seems to resent any transference and, when it comes to our garden, takes two or three years before it settles down. I have had remarkable instances of this in my time. One that happened this year will suffice. It must be five, if not six, years ago since Mr. Poupart gave me a few bulbs of Ovid (Poet) for trial. They at once went sick, as we say; and they remained in that condition until last spring, when they seemed to have become convalescent, while this year they appear to be in the best of health, and I have three or four rows in my beds of Poets, all looking extremely well.

The reverse happens now and again. One has worked up a nice little stock of this or that; then one year we find they have gone wrong, to our intense chagrin and disappointment. It seems to be impossible to account for such behaviour, more especially when we know that with our friend "A. B." the same variety continues in perfect health. Should such a thing happen as the going wrong of Barri conspicuus, it does not very much matter. Its reputation has for a long time been firmly established, and such an incident does not affect it. When, however, a variety is struggling to make a name, it is very different. In the following list I believe I have included none but what may be purchased with every confidence.

Golden King.—A deep yellow trumpet Daffodil. The flower is of medium size, and is borne on a good stem which elevates it above the foliage. It keeps a good shape and lasts a long time. The plant increases quickly.

Bernardino.—This is bound to become extremely popular, both for cutting and for the garden. There is something exquisitely beautiful in the deep ruddy apricot of its large cup surrounded by a not too stiff, somewhat undulating perianth. The colour fades in the sun, but even when it has gone we are left with a beautiful decorative flower. The plant has a magnificent constitution and is a rapid increaser.

Florence Pearson.—I have long noted this down as full of promise, and I have said that in time it will take the place of Mme. de Graaff in our borders. Unfortunately, Mme. de Graaff is

not a good laster, either when cut or when growing. Florence Pearson is, and, moreover, it is a more important-looking plant on account of its height and size. It should not be planted in the shade, as it has a tendency to weak ankles; but in most years this is not noticeable if it is growing in an open position.

Queen of Hearts is a fine, tall Barri or small-cupped Daffodil. I can speak with considerable

"That," and the finger was pointed to Acme. "Now, which next?" I would say. There was much hesitation and considerable divergence of opinion. I wanted, of course, everyone to say the one I liked; but, to be quite candid, they did not. Some did. Some chose Eagle, which I mention as a flower which grows in a sort of amphibious way, both in water and on myself. A deep, dark-eyed Cassandra describes my general

Buttercup is a very beautiful Jonquil hybrid, a very free bloomer and quick increaser. It looks like a very deep yellow coloured trumpet variety not by any means large, but of a quite presentable size. Some of the blooms measured have had a diameter of $3\frac{1}{4}$ inches, but an ordinary well-grown one would be a little less. It flowers late, is a rapid increaser, floriferous, of a good height, and with a Jonquil scent. It is a charming flower for cutting.

The President (Wheaddon) stands out well in any garden with its large, flat eye and fine, broadly segmented perianth. The flowers rise well above the foliage and make a good show in a border. The cup is yellow and the perianth a very good white. It is a variety that ought to be better known. It blooms on the late side of the season.

The Hon. Mrs. J. L. Francklin is one of the very best of Pearson's big Leedsis for garden purposes. The cup begins life quite yellow, and to a great extent retains this character to the end. I do like these yellow-centred Leedsis; there is something very pleasing in their appearance—what, I cannot exactly say, but it is a something which one never gets in an incomparabilis. The plant is vigorous and free, and a particularly rapid increaser in my garden. I have a beauty coming on with a cup in which the colour passes away in the lower part, but is retained in the upper. I always seem to couple the two together in the garden, and I mention my chick here to call attention to these partly yellow centres.

Whitewell is one of the finest garden plants among the Daffodils when it does really well. I have heard of gardens where it does not appear to do so; hence I must apologise for naming it. My excuse

is that it is so effective with its great, deep yellow eye and broad, imbricated, ivory perianth that now it has come down in price it ought to be given a trial. It likes light soil, and should be lifted yearly and replanted at once. It has been specially good with me this year.

A NEWLY MADE GARDEN AT SANDBOURNE, WORCESTERSHIRE.

THERE are some who are deterred from undertaking the making of a new garden by the idea that it will be many years before there can be any enjoyable result. But this is by no means the case, and it is hoped that these notes and illustrations may show the faint-hearted that their fears on this account are groundless. Not four years before the photographs were taken this site was a bare, sloping field without any distinctive feature whatever. It was decided to form a garden in several successive terraces, each level having a retaining wall for planting of the local red sandstone which could be quarried on the upper part



A DRY WALL AND BORDER IN A NEWLY MADE GARDEN.

confidence about this, for three years ago I swapped a little collection of fine varieties for three bulbs of this, with the condition attached that I was not to part with any for two years. It got planted in due course, and rather to hide my seeming extravagance I had it labelled Christopher. So Christopher it has been to Whitewell Rectory ever since. A beautiful, tall, taking row of an unknown appeared this spring—Christopher. I had temporarily entirely forgotten its change of name, but I felt I had a real good thing, and my judgment was confirmed when I remembered its true name. It is a prolific increaser, a good tall plant, a free bloomer, and a most pleasing flower. It must be planted, like any other all-red cup, in a position where it is shaded from the sun. One cannot disguise the fact that practically all red cups and red edges burn, but they are so beautiful in an unfaded condition that no one would wish to banish them from their gardens. All such must be specially provided for. They are worth it.

Acme comes to my mind in this connection. It is one of the most satisfactory and most pleasing of all Poets, and when in its first flush of youth it has a beautiful red eye. I made a little collection of about twenty varieties of Poet Daffodils in an outbuilding this year. Visitors were taken to see it and asked which one they liked best.

impression of it. Acme is a fine doer, a quick increaser, and bears a pretty little bloom with an eye of almost strawberry and cream red, when the latter ingredient is none too plentiful. It is well worth finding a suitable position for. It is one of Mr. Engleheart's children, but has been brought up at Lissadell. Its behaviour now it is out in the world does Sir Josslyn great credit.

Kingsley is, to my own way of thinking, one of the best of all Poets. It has a fine flower, with a large rimmed eye of the ornatus style, and a rather undulated perianth. It increases fairly quickly, is a tall grower, and so far has always done extremely well.

Pedestal is one of those wonderful flowers which keep their shape to the end. It is a large bicolor incomparabilis of the type of Lady M. Boscawen. One particular reason, however, why I mention it in this list is its late flowering habit, which makes it so useful, apart from its intrinsic merit as a flower.

Northern Light.—This is a flower which has something of the character of Blackwell, but the cup is more of an orange and it blooms later. It is a strong, free grower, and I find it keeps its colour fairly well. It has the merit of being low priced compared with the majority in this list. It is a large-cupped Daffodil (2A).

of the ground. The terraces have been formed of different widths, according to the steepness of the ground and with the consideration of moving as little earth as possible. Where a twist occurred in the shape of the hillside, suggesting that the lower terraces would have to take a different general line from those above, the difficulty was got over by forming one nearly in the middle as a sharp wedge. A wider space below gave room for a Rose garden, differently shaped; while the natural conditions of upper portions were put to suitable ways of adaptation, so that, instead of presenting difficulties, they actually offered advantages by suggesting ways of treatment that gave a pleasant variation from the more straightly terraced spaces. The borders illustrated here and on the front cover were planted less than three years ago; the intention of the design and arrangement of plants was admirably carried out by Mrs. Wakeman Newport under the happiest circumstances of her own good taste and knowledge of plants and the sympathetic enthusiasm of her excellent gardener, Mr. Packham. Where some extra filling seemed to be wanted, they knew exactly the kind of plant or shrub the place required, and placed it rightly, with the best possible result to the whole.

The pictures are different views of one of the two opposite borders on one of the levels that has a width of something over 30 feet; a 9-foot grass path has borders of 12 feet wide each side, planted mainly for June effect with a careful arrangement for colour. At one end the flowers are pink, purple and white; here are China Roses, pink and purple perennial Lupines and some white Tree Lupines, Irises with colouring inclined to pink, such as the fine pallida variety Queen of the May; the fine purple Crane's-bills, Geranium grandiflorum and G. ibericum; pink and white Pinks, and Arenaria montana. About two-thirds of the way along the whole length of 180 feet there is a distinct break in the colouring, the pinks and purples giving way to yellow and white. Here are bushes of Golden Privet with white and yellow Lupines and Irises, and a good filling of the useful plant Peltaria alliacea, about eighteen inches high, with masses of small white bloom on spreading, flattish heads, something of the character of white Alyssum. Here also are drifts of suitable foliage plants; the rich green and large leaves of Rumex alpinus and the handsomely spotted Pulmonaria saccharata. The wall at the back is planted to suit the colouring and character of the border below with Pinks, Southernwood, Iberis, Nepeta, the dwarf shrubby Veronica buxifolia and Scotch Briars. The middle of the back of the border and wall had been intended for Tamarisk, whose soft effect of grey foliage would have made a good ground for the flower colouring, but, knowing that it did not suit the garden, Mrs. Wakeman Newport cleverly substituted the useful grey-leaved shrub, Atriplex Halimus, planting it in the wall, where it is growing luxuriantly.

GERTRUDE JEKYLL.

THREE GOOD SHRUBBY CALCEOLARIAS.

THERE are few gardens in the country where some of the varieties of Calceolaria are not used as bedding plants. But, apart from the bedding varieties, a few of the shrubby species are extremely interesting and useful for garden embellishment in the milder parts of the country. Calceolaria alba is a very fine white-flowered species growing to a height of 3 feet, with clusters of white flowers freely produced and narrow, serrated foliage. C. violacea is a delightful species from Chili, with small, helmet-shaped flowers of a pale violet colour, spotted with deeper violet, which are most profusely produced during May and June. This is a good species for training to a wall—and in a sheltered situation will attain a height of 6 feet—or for a sunny nook in the rock garden, where it will make much more sturdy growth. An ideal position would be near the top of the wall garden, at such a height to allow the inside of the flowers to be seen from below. This is a really charming plant, not easily forgotten if once seen in flower, but hardy only in the milder districts. Here it stands the average winters on the rock garden without protection. C. integrifolia is another species from Chili, of great value in the more sheltered spots or by the sea. This, like the preceding, makes a handsome wall plant,

THE LABURNUMS.

ALTHOUGH the Laburnums are among our commonest flowering trees, they are rarely overlooked when selections of subjects are being made for new positions, for they are everybody's plants, are perfectly hardy and can be grown throughout the country, always blossom well, while their habit and light growth admit them into the smallest garden. There are two principal species, L. vulgare and L. alpinum, both natives of Europe; while a third and much inferior species, L. caramanicum, from Greece and Asia Minor, is also sometimes grown. Then there are numerous hybrids and varieties which are useful, and indeed necessary, for garden decoration.

Cultural Hints.—Although the Laburnums thrive in a great variety of soils, they perhaps prefer a good loam to any other. Propagation of the species is easily conducted by means of seeds, which ripen freely, while the varieties and hybrids are grafted or budded upon stocks of the species they most closely resemble. Planting may be carried out at any period between early October and late March, and care should be taken to obtain as many as possible of the roots at their full length, for they are often short of fibres,



LUPINS AND IRISES IN A NEWLY MADE GARDEN.

soon covering a large space, and has the advantage of continuing to flower for a long period. Flowers yellow, smaller than many of the bedding varieties, but produced with the greatest freedom from July until October. The above-named species also make good shrubs for the cool greenhouse. All are easy to propagate by inserting cuttings in autumn under a bell-glass or in a cold frame.

Logan Gardens, Stranraer.

R. FINDLAY.

except at the extreme points. Pruning needs carrying out with care, for, while young plants may be pruned without injury and no harm happens by cutting back wood of two or three years of age, wounds made by the removal of old branches heal with difficulty. A point to remember with regard to Laburnums is that both seeds and young wood are poisonous, and fatal cases have occurred by children eating the seeds.

Laburnum vulgare is the common Laburnum. It is found wild in the mountains of Central and Southern Europe, where it forms a tree 15 feet to 30 feet high, with a trunk 6 inches to 12 inches in diameter. Under cultivation it is sometimes rather larger. Its leaves are made up of three oval leaflets, while its yellow flowers are borne in pendulous racemes 6 inches long, which have been very aptly likened to chains of gold. The flowering period is early May. Several forms have been given varietal names. Of these, aureum,

finer inflorescences, which mature about a fortnight later. It grows 20 feet to 30 feet high, and has usually a wider head than the other species. As in the case of *L. vulgare*, several distinct forms of *L. alpinum* have been given varietal names. *Grandiflorum* is a very distinct form, with exceedingly long inflorescences; *autumnale* usually bears a second crop of flowers in September; *pendulum* has weeping branches; while *Latest* and *Longest* produces racemes between 12 inches and 20 inches in length. Between the two species there are

plant has thus been perpetuated, and we have now a tree bearing ordinary Laburnum leaves and branches, with racemes of yellow flowers and racemes of purple flowers, while here and there about the Laburnum branches appear, like "witches' brooms," tufts of branches of *Cytisus purpureus*, which bear typical leaves and flowers of the *Cytisus*. The plant is fairly common, although its history does not appear to be well known, for almost every year specimens are sent for an explanation of the peculiarity of growth and



A TREE OF THE COMMON LABURNUM PLANTED IN FRONT OF DARK-LEAVED EVERGREENS FOR CONTRAST.

with golden leaves; *pendulum*, with pendent branches; *semperflorens*, which blooms a second time during the late summer; and *Alsingeri* are some of the most distinct.

L. alpinum.—This is also found wild in the Central and Southern parts of Europe, and appears to be naturalised in some parts of the British Isles; in fact, it is known by the common name of Scotch Laburnum. It is quite distinct from the common kind, both by reason of its darker-coloured and larger leaflets, and its longer and

several hybrids, notably *Parksii* and *Watereri*. Both are excellent, free-flowering kinds.

L. Adamii is a very interesting tree, for it originated as a graft hybrid. For a very long period it has been the habit to graft *Cytisus purpureus* upon stocks of *Laburnum vulgare*, and on one occasion, in 1825, a nurseryman at Vitry, near Paris, noticed a peculiar growth on a plant which had been so grafted. This growth was watched, and as it kept its distinct character, it was in turn worked upon other stocks. The

flowers. A similar graft hybrid followed grafting *Mespilus* upon *Cratægus*, the progeny producing three distinct types of leaves, flowers and fruits.

L. caramanicum is the third cultivated species. It is found wild in Greece and Asia Minor, and in this country forms a straggling shrub 5 feet or 6 feet high, with small, *Cytisus*-like leaves and terminal heads of yellow flowers, borne during late August or September. Its late flowering season is its one redeeming feature, but for general culture it is not recommended.

W. D.

REVIEW OF THE SPRING SHOW AT CHELSEA.

ALTHOUGH the space at the disposal of exhibitors had been curtailed this year, the Royal Horticultural Society's Spring Show, now being held in the grounds of Chelsea Hospital, must be regarded as a great success. The reduction of space was in some respects advantageous, inasmuch as exhibitors were only able to show the very best of their flowers, fruits or vegetables. Visitors also were able better to grasp the more salient points. Unfortunately, the weather on the opening day was

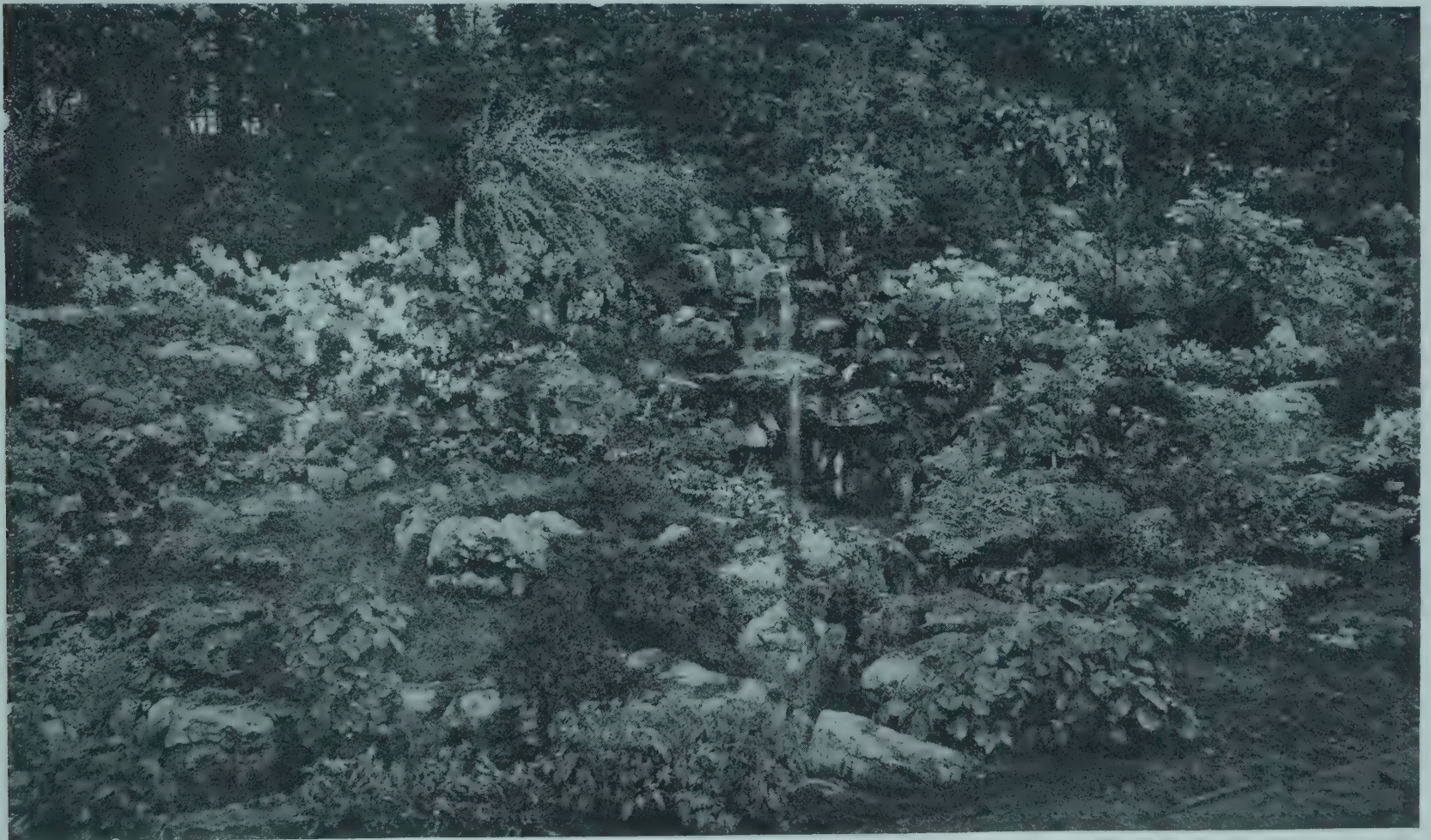
willingly rendered, without which it would have been impossible to have reported the show so promptly.

ROCK GARDENS.

While it was not to be expected that the rock gardens, which, since the great International Show, have been the most fascinating feature of the Chelsea exhibition, would this year be forthcoming in all the super-excellence and lavish display of former years, they are to be seen to-day on a scale which but half a decade ago would have commanded the highest praise. Indeed,

ranged a dozen or more of these rock garden exhibits, more uniform in size than in former years, yet large enough—they each occupy a superficial area of about two hundred and fifty feet—for all purposes, and, with much to admire, we commend them to the notice of our readers.

Starting at the Embankment end of the famous Lime Avenue, we come first to an admirable arrangement by the Guildford Hardy Plant Nursery (Mr. Upton, proprietor). Ever the home of choice alpine, the nursery has sent some of its choicest plants—plants that impress at sight. Of such, one of the most striking is a fine colony of *Sempervivum rubicundum*, a handsome form



THE ROCK AND WATER GARDEN ARRANGED BY MESSRS. R. WALLACE AND CO.

exceptionally wet, which made conditions, both overhead and underfoot, exceedingly unpleasant. The report that follows has been written by experts in the various branches of horticulture represented, and will, we hope, prove a lasting record of a wonderful show held at a time when the nation is engaged in war. To the Rev. W. Wilks, secretary of the society; Mr. S. T. Wright, superintendent of the show; Mr. Frank Reader and other officials of the society we are indebted for assistance so kindly and

they merit this to-day, not merely from the stand-points of beauty and the object-lessons they afford, but also as demonstrating the grit and enterprise which have made them possible at a time of unprecedented national stress. Moreover, because of the studious work and correct interpretation of Nature in such matters, which to the expert eye is obvious at a glance, pointing the way, like finger-posts, to more elaborate work, the best of them fulfil every purpose for which exhibitions were established, viz., the advancement of horticulture; hence they merit all praise. Near the Embankment side of the exhibition are

with reddish crimson, green-tipped leaves. Other good members of the same group also freely colonised are *S. arachnoideum* Lageri and *S. a. l. rubrum*, two of the more striking of the Cobweb Houseleeks. *Anemone globosa*, with reddish, though small, flowers, is another plant to look for. The blue-flowered alpine *Phlox* (*P. Douglasii*) is very beautiful, and *Oxalis enneaphylla rosea* is also very choice. *Iberis jucunda*, *Erodium trichomanoides*, and a fine colony of *Anthemis Aizoon*, also known as *Achillea ageratifolia*, are of great beauty. Important shrubs in the group include *Cytisus decumbens* (yellow), *Potentilla*



MESSRS. PULHAM AND SONS' ROCK AND WATER GARDEN, SHOWING GROUPING OF DWARF SHRUBS AND ALPINES.

Veitchii (white), *Cytisus purpureus albus* and *Lonicera nitida*. *Cryptomeria elegans nana*, a pigmy 9 inches high, will be found quite charming. The rock employed is sandstone.

Adjoining this is an effective piece of work by Messrs. R. Tucker and Sons, Oxford, who are using the coral ragstone of their district in quite medium-sized blocks. It is not the rocks, however, so much as the array of choice plants that appeals, and the specialist will linger long and admire much. Items of special import hardly likely to be overlooked are *Pentstemon Davidsonii* (of glaucous, prostrate habit with almost scarlet flowers), *Pinguicula reuteriana* (pink flowers, a great rarity), *P. alpina* (white, very beautiful), *Dryas Sundermannii* (a lovely plant with creamy buds and white flowers of superb form and substance), *Primula pulverulenta rosea* (a modest name for a really glorious variety), *Phlox Douglasii* (blue), *Oxalis enneaphylla rosea*, *Origanum Dictamnus* (very fine) and the very charming *Hypericum katschianum*, whose glaucous leafage, pinky stems and golden yellow flowers render it ideal for the rockery. Then, in low-lying places the visitor will note groupings of *Primulas* and *Globe-flowers* (*Trollius*), and anon a turfed incline leading to a miniature pasture aglow with *Gentian*, *Orchis*, *Primula* and other suitable things. Much more may be had for the seeking, and, happily, amid a more or less natural environment.

Messrs. Whitelegg and Page, Chislehurst, will be found to have a most attractive exhibit at this point, erring, perhaps, just a little on the lavishness of the floral display. However, the material is excellent and well placed. One of the most charming bits, which is not likely to be overlooked, is a drift of the pink-flowered *Cortusa villosa*, while *Saxifraga sanguinea superba*, the best of the red Mossies, will be found aglow with colour. *Saxifraga Aizoon rosea* is neatly and naturally tucked into crevices, while *Silene acaulis flore pleno*, wedged between sandstone blocks, will be seen in better flower than usual. Quite charming, too, is the Oak Fern (*Poly-*

podium Dryopteris), which, threading its way amid the rocks in cooler places, suggests a long tenancy. *Primula Unique* is among the finer things, and of this a superb mass catches the eye at once, though not less good or imposing will be found the ample colonies of *Primula Veitchii* and *P. pulverulenta*.

Messrs. Pulham and Sons, Newman Street, Oxford Street, have one of the boldest pieces of rockwork, and, as usual, have disposed the rocks to considerable advantage. It is composed of Lancashire stone, a limestone rock in some respects

approximating to the Cheddar limestone, though bolder and more picturesque than that usually employed. Within the prescribed area rock gardening of more than one phase is to be seen, waterfall and pool and the miniature paved walk being some of them. In shady and cool places will be found the rare *Darlingtonia californica* with *Trilliums* and *Cypripediums* in variety; a little higher up, a colonised bank of *Ramondia pyrenaica* is both at home and suggestive, as also is a nice grouping in flower of *Saxifraga Cotyledon pyramidalis* and the ever-welcome and indispensable *S. longifolia*, which though out of flower is attractive. Then, *Saxifraga Aizoon rosea* is playing a good part in rock fissure and on sunny slope, while *Lewisia*s in variety and *Gentiana verna*, of exquisite blue colour, are disposed in places suited to their well-being. Contrasting with the grey rock, in fine array is *Azalea rosæflora*, while elsewhere *Daphne Cneorum* is lighting up a station with its rich pink trusses in scores. Even the pretty Scaly Fern, *Ceterach officinarum*, has not been omitted from the dry niches it favours as a wilding, while *Primulas japonica* and *pulverulenta* in damp places show to advantage. Suitable plants adorn the water and waterside. Well-flowered *Wistaria* elsewhere add pictorial effect.

Messrs. R. Wallace and Co., Colchester, have achieved so much fame in rock gardening during recent years that one naturally expects to find their work as near perfection as is possible within the limits of the exhibition arena. This year, in common with all other exhibitors in this department, they are working within certain prescribed limits, yet they are compressing therein much ideal work and not a few essential phases. They are employing Welsh mountain limestone, a rock of grey colour approximating to the Yorkshire stone, yet demonstrating an even greater sympathy with vegetable life than this by the natural accumulations of moss and other minute herbage it embraces. To the alpine plant grower there is no more



BEAUTIFUL STRATIFIED LIMESTONE IN MESSRS. KENT AND BRYDON'S ROCK GARDEN.

welcome sign than this. The stone, too, minus the moss, is highly decorative. Features to which we would direct special attention are a dripping well garnished with the rich green of *Scolopendrium*, than which nothing could be more appropriate or desirable in garden work, and the contrast is excellent; and a rocky streamlet which presently topples into a miniature, low-placed pool. Each of these is suggestive and in good taste, though at sight, we imagine, the correct disposal of the rock generally will catch the eye of the expert before all else. This, indeed, is worthy of study alone. Plants are here, too, in considerable force, variety and beauty; and among these a fine lot of American Cowslip (*Dodecatheon*), *Daphne Cneorum*, *Onosma alba rosea*, *O. taurica*, *Oxalis enneaphylla*, *Saxifrages* in great variety, *Androsace Chumbyi* and *Lithospermum* are affording colour effect and charm in their rightful places. The association of rock and shrub we regard worthy of special study, and direct our readers' attention thereto. The rock-clinging nature of *Juniperus sinensis procumbens* is very pleasing; and quite attractive, too, is *J. s. aureum*, also the Table Pine (*Pinus Tanyosho*). *Cotoneaster congesta* is a rock-draping shrub of more than ordinary merit, and the positions these occupy should be carefully noted.

Messrs. Waterer, Son and Crisp, The Arcade, Liverpool Street, and Bagshot, Surrey, have a rock garden of more than ordinary interest, it being well conceived and in the grey limestone which appeals to all. Quite recently Messrs. Waterer have been giving at the fortnightly meetings of the Royal Horticultural Society evidences of their skill and taste in rock garden construction and grouping; hence none who have seen these exhibits will be surprised at the fuller measure of success achieved at Chelsea, with greater scope at their command and amid a more suitable environment. In a sentence, it is a piece of work where good taste, thoughtful and intelligent work, and natural planting go hand in hand. This kind of thing, while eminently fitted for the exhibition arena, would be also perfectly natural in the rock garden at home. This side of the subject is worthy of special study. But there are choice plants our readers must not miss. Space precludes our giving a list of them, and the enumerating of a few must be as finger-posts to the rest. *Lewisia*s, for example, include *oppositifolia*, *rediviva*, *Howellii* and the rare *leeana*. *Phlox Douglasii* is very charming. The fine blue bells of *Campanula Allionii* must not be overlooked; it is among the alpine gems. On an equal footing for choiceness, and surpassing it as a novelty, is *Æthionema Warley Rose*, the most lovely of its class; its rounded heads of deep rose, less than half a dozen inches high, as bright a thing as any rock garden could contain. *Subulata Phloxes*, *Mazus reptans*, an array of *Saxifrages* and others capable of floral display will not fail to catch the eye.

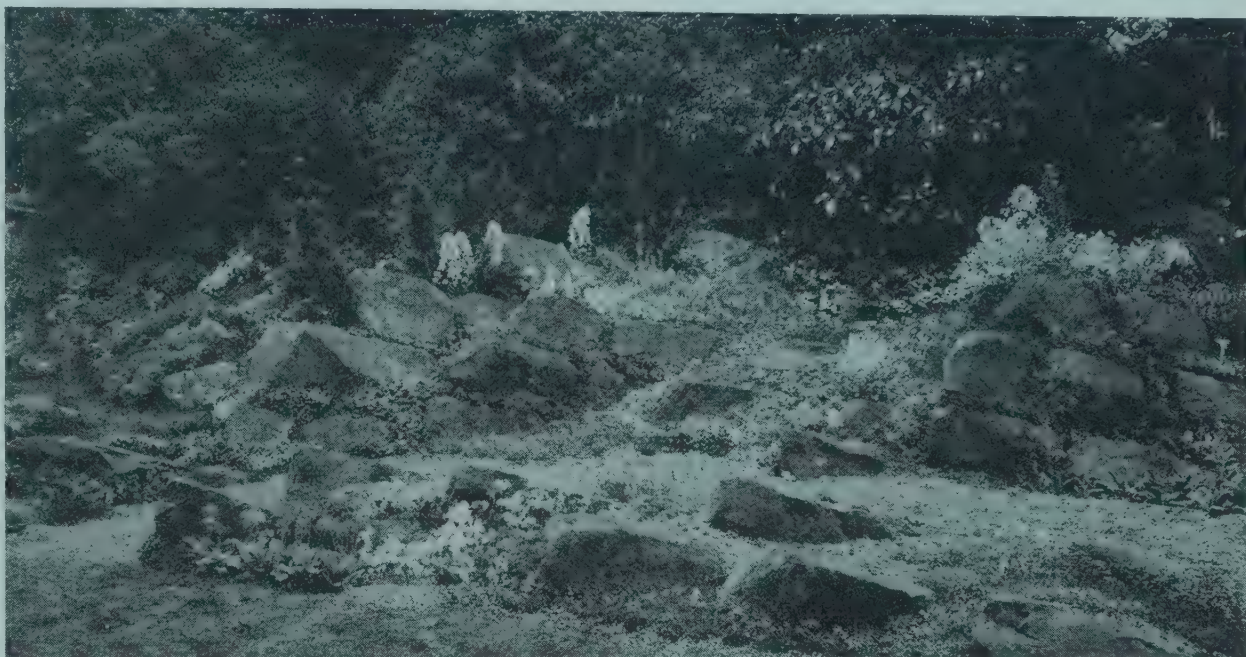
Mr. Clarence Elliott, Stevenage, is another well-known rock gardener whose exhibit merits more than a passing glance. Here will be found deftly arranged and associated with Cheddar limestone not a few choice or highly meritorious

plants. Particularly striking are *Rubus parvus*, a bright-leaved New Zealander which catches the eye at once. *Heuchera tiarellodes* is quite elegant. *Matthiola pedemontana* is very good in colour, though less striking than the orange red of *Cheiranthus Newark Park*. Quite beautiful, too, is a great colony of the blue and white *Aquilegia glandulosa*. *Campanula Stevenii alba* is, we believe, only to be seen here; it is a lovely plant, albeit not pure white. *Daphne rupestris*, *Onosma taurica*, *Phlox nivalis*, *Gentiana verna*, *Primula sibirica*, *P. Unique* and *Myosotis rupicola* are all beautiful, though the greater colour masses of *Auricula Mrs. Robinson* (a fine yellow), *Phloxes*, *Aubrietias* and *Daphne Cneorum* will catch the eye before some of these.

Messrs. Piper, Bayswater, have a very beautiful rockwork exhibit in Yorkshire stone, an outstanding structural feature being a tiny rivulet leading to a rock pool. The disposition of the rock is good, and the work generally well executed. Compared with some, the planting is quite modestly done, yet with pleasing results. *Oxalis enneaphylla*, *Gentiana verna*, *Silene Hookeri*, *Viola*

he has hardly reached his past standard of perfection in planting. Hitherto his planting efforts have been as fascinating and so replete of good taste as the disposal of his rocks was true to Nature. Features of interest include a pretty water-course and pool, with midway path and inclining drift, and with these are associated *Dodecatheon*, *Trillium*, *Funkia*, *Androsaces*, *Oxalis enneaphylla*, *Mossy Saxifrages* and much besides. The greatest flower picture is created by a wondrous mass of *Gentiana acaulis*, and none of our readers are likely to miss what is unmistakably much the greatest feast of this unique plant in the entire exhibition. Small plants of *Pinus Cembra* and others are usefully employed.

Messrs. Kent and Brydon, Darlington, who hitherto have displayed more than an elementary knowledge of rock gardening, have on this occasion surpassed all previous efforts by an exhibit which for skill and thoughtful work is well-nigh perfect. Cascade and pool, moraine and mountain meadow are among the features which catch the eye at once, while their thoughtful treatment will impress the visitor after a more critical inspection. In



BOLD ROCKWORK GROUPING BY MESSRS. WHITELEGG AND PAGE.

bosniaca (very beautiful), *Patrinia palmata*, *Androsaces* in variety, *Saxifraga lantoscana superba* and *Erodium corsicum* are worth seeking. The Umbrella Pine (*Sciadopitys verticillata*) is effectively employed. An adjoining piece of work displays the showier alpine masses.

The Misses Hopkins, Shepperton-on-Thames, have an effective rockery arrangement, and are the only lady exhibitors in this section. Here will be found not a few good things, of which a fine central group of *Primula japonica* is in close proximity to a rock pool. *Gentianas verna* and *acaulis*, *Onosma taurica*, *Geum montanum*, *Androsace sarmentosa*, *Cornus canadensis*, *Ramondias* and *Ledum palustris* are some other things that are employed with good effect.

Mr. J. Wood, Boston Spa, has already achieved such fame in rock gardening that only the most artistic work is expected of him. This year, however, while he is giving a very clear demonstration of his skill in this department, employing the ever-fascinating weathered limestone, which is also prettily garnished with moss, we think

domestic affairs we are told that it is "the little things that make the home"; in rock gardening it is the attention to details and a true interpreting of Nature in respect thereto that invests it with its greatest charm. Only an artist in rock gardening or a Nature student would have placed the Black-ribbed Spleenwort (*Asplenium Trichomanes*) in rocky chinks in the cascade high above the water's reach, yet with other minute Ferns it garnishes and plays a pretty part. The bold, low-down grouping of *Trillium* and *Cypripedium* constitutes a picture of rare beauty, while the alpine meadow is aglow with *Gentian*, *Primula frondosa* and other suitable plants. The moraine has its complement of rare *Dianthi*, *Eritrichium* and the like. *Pinguiculas* abound in wet and spongy soil, while *Edraianthus serpyllifolius* and *Ramondias* are playing a part usefully and well. *Maianthemum bifolia*, with its pretty white spires of flowers, is delightfully foiled by the Oak Fern (*Polypodium Dryopteris*), while excellent use is made of *Juniperus tamariskæfolia*, a trailing rock shrub of great charm. Wrenside (Westmorland)



EFFECTIVE GROUPING AND PLANTING BY MESSRS. WATERER, SON AND CRISP.
THE STONE USED HERE WAS EXCELLENT.

limestone is that employed, and nothing could be more pleasing. This fine exhibit is near the Embankment entrance.

Messrs. Cheal and Sons, Crawley, have rockwork composed of Sussex sandstone, and are employing free-flowering plants in masses, of which the alpine Phloxes, Aubrietias in variety, Mossy Saxifrages, Phlox Laphamii, Onosma taurica, Phlox pilosa Brilliant and others are freely employed. Some charming Acers are here, and Genista aphylla is aglow with yellow flowers.

ALPINE PLANTS IN TENTS

For the convenience of our readers, we are treating of these apart from the rock gardens in the open, and all will be readily found in the large tent, even amid the flower feast which is there displayed.

Mr. H. Hemsley, Crawley, is showing a charming variety of hybrid alpine Snapdragons, also such good things as *Dianthus neglectus*, *Daphne fioniana*, *Gentiana verna*, together with Saxifrages, alpine Phloxes, *Matthiola valesiaca* and others. *Silene tomassiniana* is very pretty.

Messrs. W. H. Rogers and Sons, Southampton, have a lovely batch of the scarlet-flowered *Ourisia coccinea*, than which, for a cool place, there is no more beautiful alpine. *Vaccinium mortiniana* (with rosy bells), *Gaultheria procumbens*, *Viola bosniaca* (very beautiful), *Myosotis rupicola*, *Primula sibirica* and *Meconopsis integrifolia* are all good and worth seeking.

Mr. A. J. Allgrove, Middle Green, Langley, Slough, has some of the choicest things and not a few novelties. Of the latter, *Aquilegia ecalcarata*, with rosy flowers, is very charming, though the great feature of the group is alpine Primulas. Of these, there are *P. luteola*, *P. sibirica* and its variety *chinensis*, *P. bulleyana*, *P. Unique*, *P. Veitchii*, *P. cockburniana* and several besides. Very beautiful and striking, too, are *Meconopsis pumilus*, the white-flowered *Anacyclus formosa* and the beautiful mauve-coloured *Lathyrus pubescens*.

Messrs. W. Cutbush and Sons, Highgate, N., are associating many beautiful alpines with other flowers. *Erinacea pungens* (a lovely mauve-flowered rock shrub), *Phlox nivalis*, *Thymus ericanoides*, *Onosma taurica*, *Edelweiss*, *Daphne Cneorum*, *Tulipa persica*, and many Primulas, Saxifrages and Androsaces are worth seeking in the group.

Sir Everard Hambro, K.C.V.O., Hayes Place, Hayes, Kent (gardener, Mr. J. Grandfield), is contributing some of the choicest and best-grown alpines the show contains, not in fragmentary bits but in ample specimens, demonstrating beauty and worth. Of such are *Asperula suberosa*, a mass of its pinky, tubular flowers, which, above minute woolly tufts, appeals at once. *Armeria cæspitosa* is full of bloom at an inch high. *Androsace helvetica* is of the best of its tribe. *Haberlea virginalis* is one of the gems of its race, chaste and beautiful withal. *Pentstemon Davidsonii* (scarlet flowers or prostrate, glaucous stems), *Erinacea pungens*, *Lewisia Cotyledon* and *L. Howellii*, *Oxalis adenophylla*, *Helichrysum frigidum* and a host of the choicest Saxifrages will afford the alpine plant lover food for thought and reflection for many days to come. Miniature shrubs are pleasingly associated.

Dr. Macwatt, Morlands, Duns, N.B., is showing quite a unique lot of alpine Primulas, of which the reddish *P. Parryi*, *P. muretiana*, *P. The General*, *P. Juliae* (a lovely mass), *P. secundiflora* (virtually a crimson-flowered *P. sikkimensis*), which, with *P. modesta* (a fairy Primrose with rosy flowers), *P. tosensis* and *P. Darialica* (all miniatures with rosy flowers), are very charming. Small seedling plants of the rare *P. Reinii* are also on view.

Messrs. T. S. Ware, Limited, Feltham, have a fine bank-like arrangement of alpines, including masses of *Lithospermum*, *Anthyllis montana*, *Æthionema grandiflora*, *Asperula suberosa*, *Gentiana verna* (a lovely bit of colour), *Saxifraga lantoscana superba*, *Androsace villosa*, *Achillea rupestris*, *Asperula capitata* (a pretty species with pinky flowers), together with *Dodecatheons*, Primulas, *Mitella diphylla*, Mossy Saxifrages,

Daphne Cneorum and a host of other things in goodly groups that will command attention at once.

Bees, Limited, Liverpool, have a fine exhibit near the Embankment end of the large tent, and here will be found some of the choicest hardy plant novelties the exhibition contains. We make a point of directing our readers' attention to *Anemone rupicola*, a new Chinese species with flowers as large as those of the Japanese Wind-flower, yet more perfect in contour and with greater solidity of petal. The sepals are rosy lilac, the petals pure white; the plant, as shown, not more than a foot high. *Weldenia candida*, *Roscoeia cautlioides*, *Primula secundiflora*, *Sedum pilosum*, *Potentilla nana argentea* (yellow) and *Erinacea pungens* are other new and choice things meriting attention. In addition, *Celmisia spectabilis argentea*, *Malvastrum coccineum*, *Aquilegia glandulosa*, *Incarvillea grandiflora* and *Oxalis adenophylla* are plants that appeal by their presence alone. Primulas are good and plentiful in a group which must be studiously inspected.

Mr. Maurice Prichard, Christchurch, Hants, is staging a remarkable lot of pot-grown alpines, the admirable specimens telling their own tale. A great feature of the group in blue and white is *Aquilegia glandulosa*. *Androsace Chumbyii* is very charming. *Clematis montana Perfection* is a rose-coloured variety and very beautiful. Saxifrages are in plenty, choice and rare sorts of the greatest beauty. *Pentstemon Scouleri* is most effective, while *Globe-flower*, *Ramondia*, *Dodecatheon*, many *Sempervivums* and Saxifrages will be found in perfection.

Mr. G. Reuthe, Keston, Kent, is also staging many choice alpines with rare flowering shrubs, and here will be found many good things in both departments. Of the alpines the visitor should seek for *Rhododendron fastigiatum* (a miniature of a few inches with violet-coloured flower trusses). *Haberlea virginalis* is an exquisite white-flowered alpine, like a small *Streptocarpus*. *Daphne arbuscula* is a lovely species from Transylvania with rosy lilac flower trusses. *Anemone alpina sulphurea* is very charming. *Daphne Verlotii*, *D. striata*, *Lewisia Howellii*, *Sisyrinchium filifolium*, *Cytisus Beanii*, *Oxalis enneaphylla major* and *Rhododendron glaucum* are others to be looked for with interest. There are many beautiful Saxifrages, together with choice shrubs, to be found in this exhibit.

Mr. W. Wells, jun., Merstham, has a choice lot of alpine Phloxes, *Incarvillea grandiflora*, together with Sedums, *Lithospermums*, Saxifrages, Aubrietias and *Daphne Cneorum*, all of which are being shown in free masses.

Mr. J. Douglas, Great Bookham, is showing a delightful lot of alpine and show Auriculas at the extreme southern side of the large tent. No exhibitor of this or any other time cultivates these plants with so much skill as Mr. Douglas, hence the plants merit attention.

FORMAL GARDENS.

Mr. E. Dixon, West Hill Nursery, Putney, has arranged a formal garden of unusual pattern, a sunk garden almost circular in outline, in which paved walk, wall garden and the like have all been efficiently treated. Irises adorn the higher parts of the border, while many alpines and other suitable plants enter into the scheme in their proper order. A sundial in the midst is also to be noted.

ORCHIDS.

The Orchid exhibits comprise eleven groups running along the north and south ends of the Large Tent. Chelsea Show is famous for its fine collections of Orchids, and although the war has probably affected Orchid-growers more seriously than any other class of horticulturists, the show is not unworthy its traditions. The exhibits from Belgium will be sorely missed, and Messrs. Sander suffer more than most in the impossibility of keeping in touch with their Belgian nurseries. The graceful sprays of *Phalænopsis rimestadtiana* are lacking, too, from many exhibits to which in the past they have given finish and charm. This is one of the plants largely grown on the Continent and now excluded. The two exhibits specially worth mention are the fine groups from Sir Jeremiah Colman and Mr. Gurney Fowler. They show what can be done by enthusiastic amateurs, and we should like to see more amateurs enter the field, even if on a smaller scale.

Messrs. Armstrong and Brown, Tunbridge Wells, occupy the first position from the entrance at the north end of the tent. A handsome centre-piece of the *Brasso-Cattleyas* Lord Kitchener and Veitchii is flanked by masses of *Lælio-Cattleyas* Fascinator and Aphrodite and some lovely forms of *Odontoglossum crispum* and *Odontiodas*. As specimens the *Odontoglossums* Epicaste, Coronation and Aglaon should be looked for, and particularly the altogether unique plant of *Cœlogyne pandurata*, nearly six feet from back to front. The brilliant *Masdevallias* give a splash of vivid colour. The albino *Lælia purpurata* Ashtonæ is a fine plant.

Sir Jeremiah Colman, Bart., Gatton Park, Reigate (gardener, Mr. J. Collier), wins distinction with the quality of so many of his fine home-raised seedlings, as well as for something original and telling in his arrangement. Prominence is given to a grand plant of the Necklace Orchid (*Cœlogyne* (dayana), which is overhung with the

loose sprays of the purple and chocolate *Odontoglossum thompsonianum*, which is always shown well from Gatton. The hybrid *Cymbidiums* are grand. The late-flowering *Dendrobium regium*, the white *Cattleya Mossiæ* and the fine forms of *Cypripedium callosum* Sanderæ also stand out, but the most brilliant pieces of colour are the scarlet *Odontiodas*, loveliest and most brilliant of which is perhaps Lady Colman.

Messrs. J. Cypher and Sons, Queen's Road, Cheltenham, turn to admirable use a square ground space on the opposite side of the gangway. One expects something characteristic in the tasteful arrangement of the exhibits of this house, and is not disappointed. The generous use of tender foliage forms a delicate tracery of greenery, against which the flowers show to greatest advantage. An arch of *Asparagus Sprengeri* is richly furnished with heavy trusses of the orange and white *Dendrobium thyrsiflorum* and the bright yellow, light sprays of *Oncidium marshallianum*. *Odontoglossums* are used as corner-pieces, with *Cattleyas*, *Miltonias*, &c., on the lower ground. Some of the few sprays of *Phalænopsis rimestadtiana* found in the show are included here.

Messrs. Charlesworth and Co., Hayward's Heath, Sussex, have a rich, distinctive piece of work, this outstanding in its wealth of forms and glorious warm colouring. Yellow and rose are not colours that one would associate at first thought, but see the effect in the centre here of the bright yellow sprays of *Oncidium marshallianum* thrusting out from the dense rose mass of a rich form of *Miltonia vexillaria*. *Oncidium concolor* carries on the yellow to the base of the group. The left wing and right wing respectively are collections of *Odontoglossums* and *Odontiodas*. Between are held many beautiful specimens. The airy *Oncidium phymatochilum* (a yard through) and a good plant of *Cœlogyne dayana* are given places of honour. *Cattleya Skinneri* is a specimen plant. There are some beautiful albinos, *Odontoglossum crispum* *Xanthotes*, *Cattleya Dusseldorffii* *Undine*

and *C. Skinneri* alba. Among the new Orchids, the Grand Duke Nicholas, King Albert and the Queen of the Belgians give their names to *Odontoglossums*. The last, with its fine shape and beautiful markings, we found the most pleasing, although smaller than the others.

Messrs. Sander and Sons, St. Albans, suffer heavily from lack of communication with their Belgian house, but the exhibit is not unworthy one of our premier houses. The grand masses of *Lælio-Cattleya hyeana* are one of the striking things in the group, under the heavy-flowered trusses of *Dendrobium thyrsiflorum* at either wing. The central bank is more varied, and to that extent less effective decoratively than in some of the groups, but plant after plant merits attention for its individual beauty. A plant of *Miltonia vexillaria* G. D. Owen carries four spikes and sixteen flowers. *Lycaste giganteum* is perhaps a finer plant than has ever been staged before. There are several fine pieces of *Brasso-Cattleya digbyano-Schröderæ*, *Cymbidium Pauwelsii*, *C. lowianum aureum*, *Odontiodas* and *Odontoglossums*. Among the new things, one should make a point of seeing *Brasso-Lælio-Cattleya Wotan* and *Lælio-Cattleya Goldstar*. Old, indeed, but what more charming among Orchids than the plant of *Oncidium pulchellum* here?

Messrs. Flory and Black, Slough, who have acquired the exclusive stocks of Orchids of the late firm of James Veitch and Sons, Limited, have an interesting group at the south side of the tent. In one sense it is the most beautiful of the exhibits, for in no other group is each individual plant given so clearly its full value. We realised the restraint necessary for this when we saw box-loads of fine plants pushed under the tabling, for which room could not be found without doing injustice to something already in place. There are many good things here. *Brasso-Cattleya Thorntonii* *Euphemia*, in the very centre, under the *Lælio-Cattleya hyeana*, is magnificent. The new *Disa Blackii*, derived from *Luna* and *grandiflora*, is



SIR EVERARD HAMRO'S WONDERFUL GROUP OF SAXIFRAGAS AND OTHER ROCK GARDEN PLANTS IN POTS

quite the nicest hybrid *Disa* in cultivation. *Lælio-Cattleya canhamiana* alba magnifica, an unnamed yellow *Lælio-Cattleya* with crimson lip, and some very fine forms of *Lælio-Cattleya Fascinator* and *Cattleya Tityus* also deserve mention. It is of interest to note here how the *Cypripediums niveum* and *bellatulum* and the finely veined *Anæctochilus* have been given subsidiary positions under plants of *Odontiodas*, &c., to indicate their shade-loving propensities.

Messrs. Mansell and Hatcher, Limited, Rawdon, Leeds, show a group distinctive in its arrangement, with a fine central feature of *Cattleya Mendelii*; but the large, suspended stands of *Miltonia vexillaria* to right and left of it rather obscure the bays of *Dendrobium thyrsiflorum* behind. The rose, orange and pink in the new finely blotched *Odontioda Enchantress* deserve special attention. *Odontoglossum Phoebe* is a brilliantly spotted plant. Among other good things we noted *Lælio-Cattleya dominiana*, fine specimens of *Cattleya Skinneri alba*, *Odontioda Bradshawia*, and an interesting set of seedlings of *Miltonia bleuana*.

flowered, are the only representatives of this old plant that we saw in the show.

Messrs. J. and A. McBean, Cooksbridge, Sussex, stage a group which stands out as one of the finest pieces of bold colouring in the whole show. The wonderful roses, oranges and scarlets of the *Odontiodas* in the centre are specially fine, only increasing the softness of the buff and pink of *Cymbidium pauwelsiana* and the brown and yellow of *Oncidium macbeanianum* on either hand. The vigour and fine character of the latter hybrid are specially worth attention. White *Cattleyas* are very good here, *Undine*, *Mossiaë-Wagneri* and *Brenda* particularly. *Lælio-Cattleya Heliuss* is a lovely distinct apricot-shaded novelty. We also noted the large blotched *Odontoglossums* and *crispum* seedlings. Of the *Odontiodas*, to mention only one, *Bruce*, standing alone, is perhaps best worth singling out.

Messrs. Stuart Low and Co., Bush Hill Park, Middlesex, have a group apart from the rest in its distinctive staging. On the left the deep red of *Renanthera* overhangs the soft pinks of

SWEET PEAS.

These are scarcely so numerous as usual, but the quality of the exhibits is, we imagine, superior to anything seen at previous spring shows.

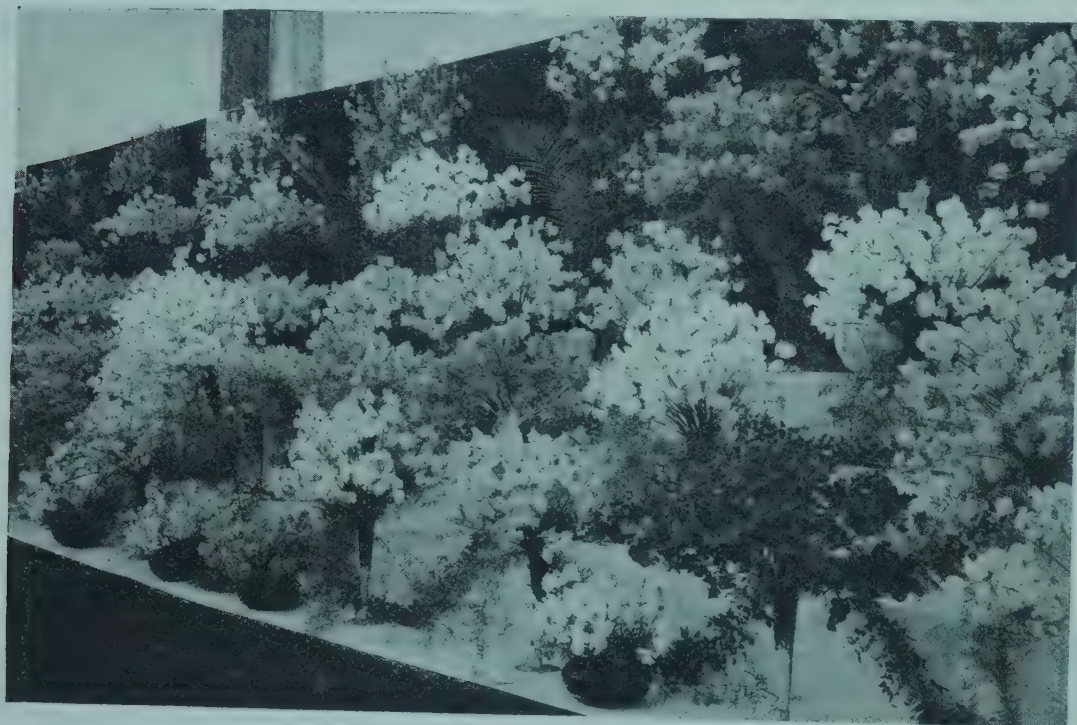
Not the least important stand is that of Messrs. S. Bide and Sons, Farnham. Backed by black velvet, artistically decorated with *Smilax*, *Cocos weddelliana* and *Maidenhair Ferns*, the vases of Sweet Peas, elevated at varying heights, show up to perfection. The unfortunate position prevents a full lighting effect, but this, however, is no fault of the exhibitors. A few of the most telling varieties on view are *R. F. Felton* (mauve), *White Queen*, *Constance Champion* (a very fine new salmon), *Edward Cowdy* (the new flaming scarlet), *Phyllis Bide* (orange), *Royal Purple*, *Orchid*, *Dick Bide* (rich amaranth), *Mrs. Hugh Wormald* and *Mrs. J. Balmer* (two 1915 novelties), and *Robert Sydenham*.

Messrs. Dobbie and Co., Edinburgh—what visions the name conjures up! Each season we look forward to seeing some firm arising to contest the great Scottish firm for premier position, and each year we find the invincible *Andrew Ireland* come up from *Mark's Tey* with more wonderful flowers than ever. The ordinary person on seeing this great Chelsea Show exhibit will gasp with astonishment. The expert will raise his hat as an acknowledgment. To pick out individual varieties is perhaps unfair to the remainder, but we must refer to *Elfrida Pearson*, *Jean Ireland* (the new *picotee*), *Dobbie's Orange*, *Frilled Pink*, *Royal Purple*, *Blue Picotee*, *New Marquis*, *King Manoel*, *Duchess of Portland*, *Mrs. Cuthbertson*, *Princess Mary*, *Dobbie's Scarlet* and *Illuminator*. One particularly fine feature is the collection of plants that fill the background. These are a veritable eye-opener; indeed, one comes away with the idea that Messrs. Dobbie and Co. are beyond the reach of mere mortals.

Messrs. Alex. Dickson and Sons, Newtownards, now that they are fully established in their branch at *Mark's Tey*, can be independent of German submarine threats, and their exhibit at Chelsea is entirely made up with flowers culled from Essex. Flanked on either side by *Tulips*, the Sweet Peas—the first the firm has ever brought to Chelsea—were by no means eclipsed. Splendidly set up in vases, one is able to admire the beauties of *King Manoel*, *Hawthorn Gladys* (a fine salmon pink), *Royal Purple*, *Orchid* (a really fine light mauve), *Robert Sydenham*, *President* (the new fiery orange self), *Fiery Cross* (the sensational silver medal variety of 1914), *Mrs. Cuthbertson*, *Dobbie's Cream*, *Sincerity*, *King White* and many others.

Robert Sydenham, Limited, Birmingham, are making an effective little display. *Lady Evelyn Eyre*, *Princess Mary*, *Robert Sydenham*, *Lady Miller*, *Norvic* (the new white), *Nora Unwin* (still able to hold its ground among whites), *Lord Fisher* (an improved *Brunette*) and numerous other well-known varieties were shown.

Mr. J. Stevenson, Wimborne, has a very effective stand near the Chelsea Hospital entrance. One of the most telling varieties is a new vivid orange named *Golden Glory*. *Honour Bright*, which recalls the *Fiery Cross* of last year, is also a fine feature. *Peace* (a pretty soft salmon pink) and *Warrior* (a new maroon) are also among the notables; while among standard varieties one notes *R. F. Felton*, *Thomas Stevenson*, *Scarlet Emperor*, *Sincerity*, *Dorothy*, *Prince George* and *Robert Sydenham*.



SOME OF THE MAGNIFICENT SWEET PEAS SHOWN BY MESSRS. DOBBIE AND CO.

Mr. Harry Dixon, *Spencer Park Nurseries*, *Wandsworth Common*, shows a small miscellaneous group of choice *Orchids*. *Masdevallia*, *Odontoglossum*, *Oncidium*, *Cymbidium* and the other principal genera are represented without special emphasis on one group more than another. From the point of view of the public, it is unfortunate that the plants are not named.

J. Gurney Fowler, Esq., *Brackenhurst, Pembury*, *Tunbridge Wells* (gardener, *Mr. J. Davis*), sends a collection full of interest and novelty. Attention centres in the rich middle group of *Cattleyas* and the side groups of *Lælio-Cattleyas*, but a large number of individual plants call for mention. *Odontoglossum Princess Mary* (a new richly blotched variety) and *Odontioda Coronation Fowler's Variety* are up for certificate. There are several fine plants of the lovely white *Odontoglossum Xanthotes*. *Brasso-Cattleya Veitchii splendens* and *Cattleya Mossiaë Pintadean* are also outstanding. Two large batches of the seldom-seen *Cattleya citrina*, well grown and

Miltonias, while lower down is a good batch of *Dendrobium brymerianum*, with its large, fringed yellow lips. A corresponding arrangement on the right includes the white *Phalaenopsis* with a number of choice *Odontiodas*, with *Stelia*, *Lycaste* and a number of little-known plants at the base. But the main bank is a large batch of *Cattleyas*, with many fine *C. Mossiaë* connecting these two wings. The new *Cattleya Princess Mary* is a charming tender pink, well-formed *Mossiaë*. *Lælio-Cattleyas G. S. Ball* and *tenebrava* give unusual pieces of orange. One expects in the exhibits from this firm a number of out-of-the-way plants, and attention should be given to the little collection, on the right, of blue-shaded *Orchids*. These are *Vanda carulescens*, *Dendrobium Victoria Regina*, *Vanda Charlesworthii* and *Cattleya intermedia carulea*. The large pans of the fragrant *Arpophyllum giganteum*, with its long, erect, rose fingers, should also be noted. The plants are all in good condition, and show unmistakable signs of good cultivation.

ROSES.

Although the beautiful novelty National Emblem is not on view, our national flower is worthily represented by sumptuous displays from the leading growers. It has often been a matter for surprise to us that no amateur has brought a really unique group of Roses to this greatest of all exhibitions. We can only recall one instance, when Lord Rothschild put up a splendid collection of Moss Roses grown in pots. Surely there are wealthy amateurs who could make a display of Roses on the same worthy scale as those who make the Orchid their hobby, and although the intrinsic value might not be so great, the honour of producing a really worthy group of Roses that calls forth equally as much cultural skill would be worth the attempt. We trust this hint thrown out to readers of *THE GARDEN* may induce some to make an attempt next year. What a delightful feature would be a good collection of the exquisite Rose species; or even a large collection of the beautiful ramblers, now so very numerous!

Messrs. William Paul and Son of Waltham Cross have certainly a most wonderful group, and it contains many choice varieties of the firm's own raising. One of the most striking novelties in the whole exhibition is Paul's Scarlet Climber. It gives us the impression of a Climbing Charlotte Klemm, and all who know that brilliant bedding Rose will realise what a fine thing Messrs. Paul have raised. The semi-double flowers of Scarlet Climber are fully $3\frac{1}{2}$ inches in diameter, and the petals are very large. The blooms are produced in nice large clusters from the base of the plant to the summit, and one can readily imagine the gorgeous effect of such a climber in the garden. Its value as a decorative plant for the conservatory is seen from the numerous



ORCHIDS TASTEFULLY ARRANGED BY MESSRS. J. CYPHER AND SONS.

specimens on view, and we feel sure this Rose will be grown by the thousand in the near future. Unlike Roses of the Carmine Pillar type, its blooms are so very persistent that they remain on the plants some two or three weeks, a desirable attribute derived from its hybrid origin with *Rosa wichuraiana*. Other fine ramblers in this group are White Tausendschön (effectively placed near Scarlet Climber), Blush Rambler, Excelsa (a Rose that seems to have quite eclipsed the old Crimson Rambler), American Pillar and Lady Godiva. There are some well-flowered standards and numerous dwarf plants, among which we

noted Mrs. Charles Hunter (very fine), Ophelia, Margaret, Sunburst, Lady Hillingdon, Marquise de Sinety, J. L. Mock, Mrs. T. Hillas, Willowmere, Mrs. T. Delacourt, Candeur Lyonnaise and Mme. Jules Crette. The last two are seedlings of Frau Karl Druschki. The first named is a grand flower, almost pure white as shown. Candeur Lyonnaise will probably supersede Frau Karl Druschki. Its flowers are much fuller, and as shown it is very fine.

Messrs. Cutbush and Son, Highgate, have their usual fine group of Polyantha Roses, and they certainly are expert cultivators of these delightful little plants. Fine weepers of Dorothy Perkins and Tausendschön, together with splendid pillars of Excelsa, relieve the group considerably, and numerous standards of Polyanthas are gracefully interspersed. Huge conical mounds of Jessie, Louise Walter, Ellen Poulsen, Mrs. Cutbush, Orleans, Yvonne Rabier, Jeanne d'Arc and Georges Elger are shown, while in the centre there are numbers of the brilliant Erna Teschendorff. Interspersed throughout the group are plants of Louise Walter (Baby Tausendschön), the whole producing a charming effect.

Mr. Charles Turner of Slough is showing some fine weeping standards of Dorothy Perkins, White Dorothy, Ethel, Flame, Coronation, Farquhar, Tausendschön, Excelsa, Hiawatha and Lady Gay; and standards of many of the popular large-flowered Roses, such as Lady Ashtown, Mme. J. Gravereaux, Hugh Dickson, Florence Pemberton, Frau Karl Druschki and J. B. Clark. These are set off by well-flowered dwarf plants of Polyanthas and some of the well-known Hybrid Perpetual and Hybrid Tea sorts, such as Mrs. Sharman Crawford, Captain Hayward, La France, Mrs. Aaron Ward, Mme. Edouard Herriot, Mrs. W. Christie Miller, Lady Hillingdon and others.

Messrs. Piper and Co. of Bayswater have put up a bank of Polyanthas, mostly in large baskets. In this group we noticed a very pretty double white named J. Bourgeois, a sort likely to prove extremely useful, as a pot plant especially. Phyllis, Jeanne d'Arc, Schneewittchen, Georges Elger, E. Teschendorff, Mrs. W. H. Cutbush and K. Zeimet are found in large masses, the whole effectively backed by well-flowered ramblers.



MESSRS. WILLIAM PAUL AND SON'S GROUP OF ROSES BEFORE THE LARGE BLOOMS WERE UNITED.

Messrs. Cannell and Son of Swanley are showing pyramidal ramblers, well flowered, among which we noted American Pillar, a variety this firm first exhibited in this country. Excelsa, Veilchenblau, Dorothy Dennison, Lady Gay and Minnehaha are also very fine.

Mr. E. J. Hicks, Twyford, has a grand group, arranged most effectively. Prominent in the group are several plants of the brilliant single Princess Mary and some well-flowered pieces of the beautiful single species, Rosa Moyesii. Mrs. George Norwood shows its value as a forcing Rose, and it possesses a delightful fragrance. Other novelties are Mrs. John Foster (in the way of Lieutenant Chauré), Mrs. George Roupell (orange), and Mme. Edouard Herriot. There are also numerous Polyanthas of the best sorts.

Messrs. Brown of Peterborough, among other things, have put up a nice lot of their new semi-double climber, Miss Rosalie Wrench. It is a pretty shade of pink, and should be useful.

C. Russell, Mme. Edouard Herriot, Molly Sharman Crawford, Countess of Shaftesbury and many others.

Altogether the Rose is very grandly represented, and in our opinion equal to any former show. We miss the fine group of Messrs. Mount and Sons, for hitherto the quality of bloom of this firm has been really splendid. The numerous array of ramblers and Polyanthas in almost every group portray the value of these Roses for decoration, and their place in the up-to-date garden is certainly assured.

A most excellent group is that of Messrs. B. R. Cant and Sons, Colchester. It reminds one of the glorious summer show, so splendid is the quality of the individual flowers. There is an absence of overcrowding, far too evident in many of the displays. The pillars and standards are very fine, consisting of the well-known American Pillar, Excelsa, Lady Godiva, White Dorothy, Minnehaha, &c. Splendid masses of the firm's own novelties are to be seen, such as Hon. Mrs. Grosvenor, Sallie

close together. The ramblers and weepers are not very densely flowered, but they are very elegantly disposed over the groups. Here we find the lovely yellow Banksian, now so rarely seen. Beautiful specimens of Freda, Rayon d'Or, Othello, Sunburst (although white, the flowers are fine), Florence Pemberton, Edward Mawley, Mrs. A. R. Waddell, David Harum, Souv. de G. Prat, A. Colomb, Magnolia, G. Grunerwald and Lady A. Stanley are other good things in this very fine lot.

Messrs. Hobbies, Limited, have also two groups, unfortunately separated, but very tastefully displayed upon arches and in large baskets, together with columns of cut bloom. Polyanthas of their own raising are very interesting, especially Baby Elegance, Meadow Sweet and Dewdrop. Fine masses of Pemberton's White Rambler, Florence Mitten, Tausendschön, Excelsa, Dorothy Perkins, Lady Godiva and Mrs. M. H. Walsh are seen. This last is a grand pure white rambler

that has come to stay. The cut blooms of Ophelia, Lady Pirrie, Sunburst, Souv. de G. Prat, Mme. Edouard Herriot, Lady Hillingdon and Frau Karl Druschki are extremely good.

Mr. George Prince of Longworth is very strong in densely flowered ramblers, among which we noted Chatillon Rambler, a most beautiful novelty of lighter shade than Dorothy Perkins. Standards of Excelsa, Blush Rambler, White Dorothy and Hiawatha are particularly good, while the masses of Jessie, E. Teschendorff, Ellen Poulsen and Phyllis give a beautiful finish to a very pretty lot.

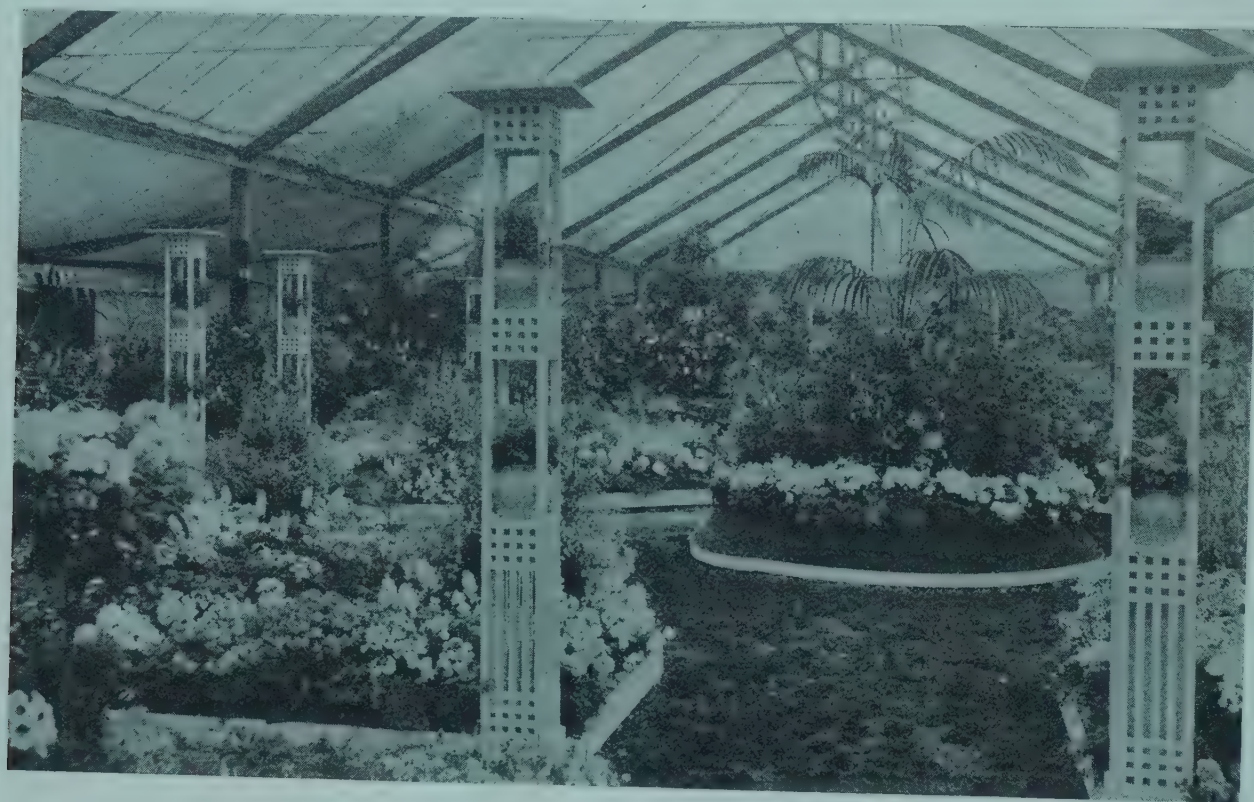
Messrs. Frank Cant and Co., Colchester, have two large groups most tastefully arranged, and they contain a very large selection of superb varieties and of grand quality. Mrs. Charles E. Salmon is a delightful single, and its colour is a very dainty salmon pink. The flowers are of huge size, quite 5 inches across, so that its effectiveness in the garden will be very great. The blooms of Mrs. Foley Hobbs are all of medal quality, and other noteworthy sorts are Lady A. Stanley, Dorothy

Ratcliff (a charming Rose under glass), George Dickson (superb), Mme. Edouard Herriot, Florence Pemberton, Mrs. George Shawyer, Lady Roberts and many of the newer kinds. Br iswick Charm is a very beautiful Rambler.

Some grandly flowered plants of American Pillar come from Messrs. R. J. Barnes and Son of Malvern, who also show good cut blooms of such as Rayon d'Or and Mme. Edouard Herriot.

STOVE AND GREENHOUSE PLANTS.

Like most of the departments in the show, this section has considerably fewer exhibits than in previous years. The large, handsome groups staged by Messrs. James Veitch and Son certainly leave a place which is not filled at the present show. The exhibits staged show excellent quality, and the colours in the subdued light of the large tent show to the greatest advantage.



A PORTION OF MESSRS. SUTTON AND SONS' GROUP OF GREENHOUSE PLANTS RAISED FROM SEEDS.

Messrs. G. and W. Burch of Peterborough have a splendid group, mainly of cut blooms. The quality is excellent. Splendid flowers of Mrs. Foley Hobbs remind one of the summer shows, and there are also grand lots of Molly Sharman Crawford, Lyon Rose, Mme. Edouard Herriot, Sunburst (very rich in colour), Mrs. H. Stevens, Melody (very fine) and Yvonne Vacherot; while these are all backed up by good masses of Sodenia and other ramblers.

The Rev. J. Pemberton is showing his White Rambler. It is certainly a very pure white, but somehow the flowers become soiled in appearance, which somewhat detracts from its beauty. This may be owing to damage in travelling, but it is unquestionably a Rose to be desired.

Among their lovely collection of good things Messrs. H. B. May and Sons of Chingford have ramblers and Polyantha Roses in really well-flowered specimens.

Messrs. Low and Co. of Bush Hill Park have a sumptuous array of good things, especially Mrs.

(a very rich orange colour of lovely elongated form) and Augustus Hartmann (one of the most brilliant of the scarlet orange Roses of recent years, which proves of great value to the exhibitor). Cupid will be a delightful pillar Rose, and one we all shall want. It deservedly obtained the Cory Cup at the Spring Show of the National Rose Society. Autumn Tints is also of exquisite colour. The charming variety Joan is quite unique in its tinting, and partakes in form of one of its parents, Melanie Soupert. St. Helena is grand. The wonderful colour of Mme. Edouard Herriot gives a charm to this lovely display, and our minds are carried to the early June days by the masses of Austrian Copper and Austrian Yellow. Juliet, Richmond, Hugh Dickson and a host of other kinds are also represented by large clusters, while the exquisite single Rambler, Silver Moon, will make everyone desire to have this fine variety upon their pergola.

Messrs. George Paul and Son of Cheshunt have a charmingly arranged group, or rather two groups,



CALCEOLARIAS AND SCHIZANTHUSES SHOWN BY MESSRS. E. WEBB AND SONS.

On entering the Main Tent from the Embankment the visitor is immediately attracted by the splendid display of Messrs. James Carter and Co. of Raynes Park. This includes some of the choicest examples of the well-known strains of Cinerarias, Gloxinias, Calceolarias and Begonias. Several distinct features are introduced in the present display, making a welcome change from the stereotyped exhibits of greenhouse flowers which have been so prominent formerly. Especially noticeable is the collection of annuals grown in pots in order to demonstrate their value for spring flowering. These include some handsome and well-grown specimens of Clarkias Salmon Queen and Brilliant Princess, both in excellent form and colour. Chrysanthemum Morning Star, Thunbergia alata, the brilliant colouring of Alonsoa Warscewiczii, Phacelia campanularia and Dimorphanthea aurantiaca showing to great advantage in conjunction with Nemesis, Thunbergia alata and Nycteria selaginoides, the whole making a magnificent display.

In close proximity to this a most interesting group, including many New Holland Plants, is staged by Messrs. Stuart Low and Co. of Bush Hill Park, Enfield. The centre consists of some well-grown plants of Acacia armata variety pendula, its pale yellow flowers borne in the greatest profusion. Some well-flowered plants of Metrosideros floribunda with its rich crimson flowers stand out prominently in direct contrast, while in conjunction with these, arranged on a table, are some Streptocarpus hybrids of good form and colour, which form excellent plants for greenhouse decoration. Boronia heterophylla is also in evidence, together with Eriostemons in full flower and bud. An interesting

plant in this exhibit is Echium Wildpretii, consisting of a single flowering stem with long linear, silvery leaves, surmounted with spikes of rosy crimson flowers.

A most interesting and noteworthy display of Amaryllis is staged by Messrs. Robert P. Ker and Sons, Grassendale, Liverpool. The exceptional size of the blooms, the beautiful form of the flowers and the brilliancy of the colouring at once give the hall-mark of excellence to this charming display.

A very tastefully arranged exhibit of Lilies of the Valley, surmounted and interspersed with Palms, &c., is staged by Mr. William Iceton, Putney, S.W. The size of the flowers, their clean foliage and general excellence make this

an exceedingly pretty and charming display, and fully demonstrates the decorative value of the flower, which is obtainable throughout the year.

A pleasing group of Richardia Pentlandii is shown at an entrance of the marquee by James Horlick, Esq., West Dean Park, Chichester (gardener, Mr. W. H. Smith).

A very choice and well-grown display of Schizanthus is staged by Messrs. Whitelegg and Page, Chislehurst, which comprises excellent and well-grown specimens of choice form and colour.

Messrs. Wills and Segar, Royal Exotic Nursery, South Kensington, are showing a collection of flowering plants in conjunction with Palms and other foliage plants.

A large and varied exhibit of choice Ferns is staged by Messrs. H. B. May and Sons, Upper Edmonton, hardy Ferns forming a distinct feature. Particularly noticeable are the Royal Fern and its varieties, handsome specimens of Polypodium mundaianum with its delicately crested fronds; also Nephrolepis exaltata Neubertii and Marshallii compacta (both in excellent condition), and the most finely divided variety N. exaltata variety Willmottæ and Polypodium glaucum crispum, being most distinct in colouring. The Climbing Fern, Lygodium scandens, is also prominent. Flowering and foliage plants are also staged in an adjoining group by this firm, and present an effective display.

Messrs. John Peed and Son, West Norwood, have a splendid group of Caladiums, embracing some of the choicest varieties in form and colour. Prominent among these are Mikado, Rio de Janeiro, Silver Queen, Oriflamme, Sir Oswald Moseley and King George V. These handsome specimen plants, lightly staged over a groundwork of suitable green foliage, make a particularly striking display.

Many beautiful hardy Azaleas, chiefly forms of Azalea mollis and Ghent varieties, are splendidly grown and shown by Messrs. R. and G. Cuthbert, Southgate. Of the former, the rich colouring of Brilliant Sunset and Flambeau at once claims the visitor's attention. That charming variety,



PART OF MESSRS J. CARTER AND CO.'S GROUP OF GREENHOUSE ANNUALS.



"HAWLMARK" TULIPS ARRANGED BY MESSRS. ALEX. DICKSON AND SONS.

Anthony Koster, is to be noticed in the fullest beauty; and Nicholas Beet's Comte de Quincy and the pleasing variety Rosy, all blended together in delightful harmony of colouring, make a most attractive display. The new variety, *occidentalis delicatissima*, is of a distinct and pleasing shade, and will doubtless prove a distinct addition to these well-known flowers.

A very sweet perfume is noticed, and, when traced to its source, reveals a group of white-flowered Stock All The Year Round, which is exceptionally well grown by Mr. S. Mortimer, Swiss Nursery, Rowledge, near Farnham.

A group of Clematises attracts the visitor, staged by Mr. L. R. Russell, Sheen Road, Richmond. Prominent varieties are Ville de Lyon, of deep rosy hue; Henryi, a charming white; Mrs. Cholmondeley, pale mauve; Lady Northcliffe, rich purple; Nelly Moser, a distinct variety, the petals having a pale rose centre and deep white margins; President, richest deep purple; and Miss Bateman, pure white.

The attractive exhibit arranged in double pyramid form by Messrs. Edward Webb and Sons, Stourbridge, meets the eye, and shows some well-flowered plants of Cinerarias, Calceolarias, Gloxinias, Amaryllis and other annual and greenhouse plants, all in excellent condition, and for which this well-known firm is famous.

A bank of Palms closely interspersed with some well-grown examples of hybrid Amaryllis in the widest possible range of colouring is staged by Messrs. William Bull and Sons, Chelsea, and is well worthy of attention.

The exhibit of Messrs. Sutton and Sons, Reading, forms a most attractive feature. It is arranged in the form of a complete flower garden, comprising a central circular bed surrounded by four others. The centre bed consists of a beautiful group of *Salpiglossis*, grown in pots, each forming a handsome specimen, of rich and varied hues. *Cineraria stellata* is a leading feature of the surrounding beds, and the delicate shades of pink and blue are most attractive. Gloxinias, Begonias, Calceolarias, *Primula obconica* and other greenhouse flowers are also shown in pleasing conjunction. The exhibit also embraces a comprehensive collection of annuals, including some large-flowered examples of *Phlox Drummondii* in seven distinct shades of colour. Other leading features are Nicotianas, Clarkias, *Schizanthuses*, *Nemesias*, &c.,

all arranged in pleasing harmony with their surroundings.

An attractive group of *Dracæna Victoria*, with its handsome green and golden variegated foliage, is displayed by Mr. L. R. Russell, Sheen Road, Richmond. The plants are extremely well grown, and range from 6 feet specimens in the centre to 30 inches at the margins of group, each plant being a specimen, the whole group being edged with *Tillandsias*. *Caladiums* are also shown by this exhibitor, some of the choicest varieties being Thomas Tomlinson, William Rappart, Rose Lang, Dora Russell, Emperor Alexander III. and Mrs. L. R. Russell.

A grand exhibit of stove and greenhouse Ferns is staged by Messrs. James Hill and Son, Barrowfield Nursery, Lower Edmonton, having some well-grown specimens of Tree Ferns, *Dicksonia squarrosa* and *Cyathea dealbata* as a background. Other leading varieties were *Davallia Veitchii elegantissima*, *Gymnogramma*, *Pelleas*, *Adiantum reniforme*, and the richly tinted fronds of *A. macrophyllum*. An outstanding feature of the

group is the magnificent specimen of *Platycerium grande*, which has two large sterile and three fertile fronds.

TULIPS.

Sir Harry Veitch truly said, at the Council luncheon to members of the Press, that Tulips were one of the great features of the 1915 Show. We have never seen them in greater numbers or in better condition, as a general rule the Great Spring Show is too late or the season is too early. On the present occasion the two coincide.

Messrs. Barr and Sons have two mountains, each made of well-grown and clean blooms. The stiffness is relieved by the introduction of cut-leaved Maples, while the margins of both groups are furnished off with Ferns. Among other Tulips we noted Zulu, a fine, tall, rich purple of a shade quite its own; Mrs. Moon, a tall, yellow "waisted" flower with pointed petals; Illuminator, one of the best of the beautiful *billietiana* type which has red-edged, yellow flowers; The Bishop, the best of the blue purples; Louis XIV., a rich, deep plum purple with an edge of coppery brown, universally acknowledged to be one of the most refined of all varieties; and Glare of the Garden, a dwarf-growing, deep crimson, long-shaped flower, useful for windy places or for front positions in borders.

Messrs. Hogg and Robertson brought over a good representative collection from Ireland, which is staged in large vases of one variety against the western side of the tent. Palms in pots and cut *Asparagus Sprengeri* in the vases toned the brightness of the flowers. We noticed The Fawn, buff or pinky buff, with a paler edge to the petals; *lutea pallida* (Mrs. Keightley), long, pale yellow; Europe, a lovely rosy red Darwin, with an almost white base; Rev. H. Ewbank, mauve, with a lighter tone on the edges; Emerald Gem; Goldfinder, white base, with clear scarlet colouring; and Petrus Hondius, a pinkish cherry (large flower), said to be the brightest of all Tulips in a mass.

Messrs. C. H. Tandevin and Co. staged Tulips for the first time. They only started growing them last autumn, when they settled down at



SOME OF THE BEAUTIFUL AURICULAS AND BORDER CARNATIONS SHOWN BY MR. J. DOUGLAS.

Raby Flower Farm, Willaston, near Chester. Pluto (a hue of dull rose), Clara Butt, Orange King (the best orange red) and Phyllis (a pale lilac) are all good.

Messrs. Walter T. Ware, Limited, have some of their seedlings which created so much interest at the Tulip Exhibition and Conference last week. They are a very striking lot, and deserve special mention as signalling the coming of the seedling, for which we have been so long waiting. Creselda, a pretty pale orange rose with a buff edge; Chamois, a long-shaped rose with a pale pink edge; and Empire, an immense but rather too coarse-looking yellow (award of merit on Tuesday, May 11), are in a most interesting little group.

Messrs. G. Bunyard and Co. of Maidstone arranged a large circular bed with appropriate greenery, the general idea being a centre of Cottage and Darwin varieties with a surround of different kinds of "Parrots." It is a departure from the common, and cannot fail to be noticed. Many of the good old sorts, like Mr. Farncombe Sanders, Clara Butt, Tulipe Noire, Rev. H. Ewbank, Psyche, Mrs. Krelage and Pride of Haarlem, are well shown.

Mr. Alfred Dawkins puts up a small but select little lot in the ordinary way on one of the side tables. He has a pretty vase of Sir Harry, which is one of the best pale pinks among the cottages, also the good old double Blue Flag and the now popular dark brown-maroon Dom Pedro. William Pitt looks very fine; the deep blood red of the middle part of the exterior of the petals, together with the brighter tone of the edge, is most effective. By the way, this variety is excellent for pots.

Messrs. Dobbie and Co. are a Scottish firm, but where would they be in their glorious displays without poor Ould Ireland? Where Moses was when the light went out. The reporter who made our notes simply said another fine bit of work, very much on the lines of the Conference Exhibition group, which we hope to illustrate next week. The individual blooms are large and clean, and the individual vases not too much crowded together. The bright red Isis and the grand yellows W. T. Ware, gesneriana lutea and Ellen Willmott, to place them in order of depth of colour, are distinctly good, although the first-named were on the pale side.

The Cotswold firm of John Jeffries and Son—ever redolent of the Tulip from the days when Tulip shows filled the land—shows what the West Country can turn out. There is a considerable number of unusual varieties, such as Viking (a rich blue purple, second only to The Bishop in its particular shade), Geefs (the pale Burgundy-coloured, straight-petalled Darwin), Gryphus (a very handsome dark purple), Ariadne (a brilliant scarlet) and Jeffries (a very fine ruby red, which, we suppose, must have been named after the old firm).

Messrs. J. Piper and Sons have an uncommon-shaped group next a large bank of Orchids at the Thames end of the tent. It is very deep from back to front. Tall pillars of bloom formed a background for lightly arranged vases. The

whole effect against the light striped canvas reminds us of a kaleidoscope, and it only wanted to be gently shaken to give one the impression of a coloured firework cascade. The rich deep plum purple Bacchus; Vitellina, the pale green toned yellow; the red-edged Golden Crown; the orange cherry La Merveille and the deep-shaded Faust stand out very well.

Messrs. Alexander Dickson and Sons have a large and varied collection, well set up and both well grown and in good condition. To see the huge cases and to note the slowly growing group as vase after vase is given its appointed place would make anyone realise what the staging of such a display means. It is a great effort, and will, we imagine, figure high in the list of awards. Bonfire, a deep rich red with a fiery scarlet edge; Cleo (Sensation), a taking biscuit brown; the old Bouton d'Or, as large as Oranges; Velvet King, deep red-purple; Erguste, the exquisite mauve; Moonlight, the refined, long-

Solomon's Seal in large sprays, and a grey-looking daffodil green grass, Elymus glaucus, are introduced with very pleasing effect. Colour schemes of mauve and pink and other combinations clothe the mountain and hill, while red predominated in the valley. Marconi, large deep purple; Zomerschoom, the ancient; Carnation, the refined Picotee; Edmee, the most brilliant of the roses, with pink edges; Blue Flag and Inglescombe Pink are a few picked out almost at hazard.

Messrs. R. H. Bath, Limited, are one of those firms who affected the mountain, but in their case it has a wider base than the others. Broken Darwin forms are much in evidence, reminding us of their group at the Conference Show. Are these going to come into fashion? Special mention of a new picotee edge on a pale primrose ground must be made—Eva; its rose-coloured edge looks very bright. Bleu Aimable, the lovely, shapely, deep mauve; Nauticus, the giant early rose; Professor F. Darwin, a florist shaped cerise



THE MAGNIFICENT COLLECTION OF VEGETABLES EXHIBITED BY THE HON. VICARY GIBBS.

flowered deep primrose yellow; Melicette, the shapely mauve; and many another staged, but alas! because of space, unnoticed here, compose a fine whole.

Messrs. Sutton and Sons, upon a groundwork of black velvet and taking full advantage of two pillars which intersected their table, have a most pleasing exhibit, well arranged and excellently carried out. The different varieties are all good examples of themselves. Perhaps we may mention the quaint horned Tulip cornuta, Massenet (The Dove), Bacchus, Clio, Leghorn Bonnet (a very favourite late straw yellow) and the never-to-be-surpassed deep rich plum purple and bronze Louis XIV.

Messrs. Waterer, Sons and Crisp varied the usual sugar-loaf mountain type. The whole display is quite first-rate, and as full of good things as an egg is full of meat. In fact, there is an overflow meeting graced by just as nice blooms as were to be seen in the main group.

red Darwin; Viking, Melicette, rectified; Calliope; and the very bright and pretty flamed bizarre Miss Doris Diggle, are but a few of the delectable dishes prepared for our eyes to feast upon.

Messrs. R. Wallace and Co. of Colchester have escaped the Zeppelin bombs, and so have their Tulips and their brains. A more pleasing set-out of Tulips in artistic fashion than the triangular space assigned to them it would be impossible to imagine. It is a bit of hilly country, and each bit of the raised ground is a colour scheme in mauve, rose, red or brown, while the valleys and plains show themselves clothed in white and yellow—a pretty conception, admirably conceived and well carried out. Boadicea, Grenadier and the exquisite Beau Brummel are prominent among the reds. Panorama, Melicette, Marjoletti, Gertrude and many other beauties fill up their allotted spaces and help to give the necessary tones and shades. Encircling all was a band of hardy Ferns.

CARNATIONS.

As usual, these are very prominent, indeed, it is impossible to walk of a Chelsea Show devoid of Carnations.

Mr. A. F. Dutton, ever surpasses himself on this occasion. The baskets are staged both on pedestals and upon the staging itself, and among the host of varieties, each occupying a basket, one observes Baroness de Brien (glorious), the well-known Mikado, Champion, Winsor (very hot), Lady Northcliffe, Lady Fuller (a grand new salmon), Chelsea (the new dark), Sunstar, Mrs. C. F. Raphael, White Perfection, Mrs. A. F. Dutton (very charming with its varying shades of pink), Enchantress Supreme, Triumph and Carola.

Messrs. William Clibbush and Son, Highgate, unlike the usual run of Carnation specialists, arrange a large number of growing plants, mostly Malmaisons, in their group. Among the most notable varieties are Lady Ingestre, Highgate White (a fine new Perpetual Malmaison), Countess Fitzwilliam (a huge crimson), Sabina (a very distinct salmon) and Mrs. L. Mackinnon (a superb scarlet).

Messrs. Allwood Brothers, Bayward's Heath, make a very effective group. The centre is filled by a large triple side mirror surrounded by a superb Palm. At each corner of the mirror is a tall pillar, which arches over and carries a hanging basket of Carnations. The space above the mirror is filled with the gorgeous Mary Allwood, while the corners are filled in with Wivelsfield White. Among the other varieties on view are Salmon Enchantress, Princess Dagmar, Mrs. B. Chenev, and Mrs. C. F. Raphael.

Messrs. Stuart Low and Co., Enfield, can always be depended upon to put up a telling exhibit, and on this occasion they fill some eighteen feet run. Arranged in a charming bowl in the centre is a mass of the well-known Georgeus, while above it is a hanging basket of the same variety. Apart from this centre-piece, one sees superb stands and vases of Salmon King, Baroness de Brien, Princess Dagmar, Enchantress Supreme, Megasta (the giant new Perpetual Malmaison), Yellow Primer and many other varieties.

Mr. C. Engelmann's exhibit consists of a tall pillar of Scarlet Carola, surrounded by smaller pillars of Carola, Enchantress Supreme, Pioneer (a fine rose pink), Variegated Carola, Lady Northcliffe, Bella (a charming luxury) and Sunstar. Altogether, about five hundred dozen blooms are included in the wonderful exhibit.

Messrs. Young and Co., Chesham, make a very pleasing display. Carola fills the centre of the stand, while well-set-up vases and tall stands flank it on either side. Dutchess of Devonshire (crimson), White Enchantress, Triumph, Baroness de Brien, Scarlet Glow, Mikado, Lady Northcliffe (a charming new pink), Lady A. Newell and Winsor are a few of the varieties one comes in passing along. A strikingly fine exhibit of Anterlaminum Nelsae is also a feature.

Messrs. Laxton Brothers, Bedford, have come out as Carnation growers, and they exhibit a very fine seedling named Bedford Belle. This is a very bright salmon pink, reminding one of Lady Fuller, but we should say a better grower. Seven large vases and a tall basket are filled with this one variety, and the effect is decidedly pleasing.

Messrs. William Wells and Co., Merstham, fill a small space with some excellent blooms of Pink Sensation, Yellow Stone, Champion, Mrs. B. Chenev, Enchantress Supreme, and several other well-known varieties. Owing to the curtailment of space, this firm is not able to make a full display, but, needless to state, Anterlaminum Nelsae occupies a strong position.

For the first time, Messrs. C. H. Tadevin and Co., Willaston, Chester, have come to London, and their efforts are not to be despised.



A CORNER OF MESSRS. LAXTON'S GROUP, SHOWING FORCED STRAWBERRIES IN PERFECT CONDITION.

A few of the varieties set up are Mrs. C. F. Raphael, Max Day, Mikado, Fektra, Winsor, Scarlet Glow, Carola and Rose Pink Enchantress.

A change from the Perpetuals are the superb flowers set up by Mr. James Douglas, Great Buckham. Fully thirty vases of border varieties are set up, and here one sees some of the most beautiful tints. Buckham Clive (crimson), Daisy Walker (white, faded pink), Amy Roberts (white), Miss Rose Josephs (terra-cotta), Elizabeth Sealfour (buff), Mrs. E. Douglas (yellow), Mrs. Robert Morton (orange), Rose Mary (red rose) and Mrs. R. Gordon (salmon pink) are a few striking varieties at this collection.

Mr. H. Batters, Chesham, in the limited space allotted him, makes a great display with very choice blooms. Few growers can equal the Chesham man at his best, and on this occasion he shows in splendid style. Although the vases

are perforce somewhat crowded. Such notable varieties as Mrs. C. F. Raphael, R. F. Felton, Carola, Lady Ingestre, White Enchantress, Mary Allwood, Enchantress Supreme, Mikado, &c., are in perfection.

FRUIT AND VEGETABLES.

Considering the importance of our food supply at the present juncture, it is disappointing and so few exhibits of eatables. The exhibit is of superlative excellence, and Mr. E. Beckett, head gardener to the Hon. Vicary Gibbs, Elstree, has admirably surpassed himself. The general kinds—Cabbages, Broccoli, Carrots, Onions, &c.—are there in perfect form; while such forced vegetables as Marrows, Turnips, Cucumbers, Aubergines, Broad Beans, Golden Waxpod Beans, Peas and Cauliflowers illustrate supreme cultural skill. The arrangement also leaves nothing to be desired.

Of the collections of fruit, that from the gardens of the Hon. John Ward, C.V.O., Chesham, Hungerford, reflects the greatest credit on the gardener, Mr. Charles Beckett. At this early season such well-coloured Grapes as the large bunches of Black Hamburgh and Foster's Seedling have rarely been seen. The Melons (Sutton's Scarlet, Emerald and Superlative) are very large and of enticing aroma; while the dish of Cardinal Nectarines and those of Strawberries King George and Royal Sovereign make one wish to break the Tenth Commandment and seriously threaten the Eighth.

Melons in great variety and ripeness are displayed by Messrs. Sutton of Reading. Of the fifteen or more sorts, the bright yellow Universal, King George (scarlet flesh), Emerald Gem, Jubilee (green flesh) and the old favourite Hero of Lockinge predominate. But all are splendid, and this probably unique exhibit will live in the memories of the visitors.

The keeping qualities of many Apples are well illustrated on the stand of Messrs. George Burdett, Maidstone, who show large, well-

coloured and very firm fruits in fifty varieties. Space permits the mention of only a few, and we select Clarke's Seedling (which is said by some to be a better keeper than Bramley's Seedling), Newton Wonder, Ontario, Lady's Finger, Albert, Calville de Fontenay, King of Tomkins' Country, Waggoner, Cox's Orange Pippin and Annie Elizabeth as being representative of this noteworthy exhibit.

No one is likely to overlook the superb collection of pot fruits set up by Messrs. Laxton of Bedford, where they show pots of Laxtonberries, Loganberries and Strawberries bearing ample crops. Such Strawberries as Admiral, King George, Bountiful and The Duke are of splendid appearance. In an outdoor group this firm are showing trained trees, among which a large gridiron Renette du Canada Apple tree in full bloom is delightful.

(Continued on page viii.)

SEASONABLE NOTES ON CHRYSANTHEMUMS.

WATERING now is a matter that must be given very close attention, as the soil in the small pots dries quickly. Some cultivators keep their plants in blocks to prevent the rapid drying of the soil and, further, for convenience in attending to their general requirements. This plan may be adopted where large numbers of plants are grown for market purposes, but it is not a good one in the case of plants for exhibition, as later, when they are spaced out and placed in their large pots, many valuable lower leaves are lost. Keep the plants quite free of each other and carefully examine them three or four times on every fine day, picking out the plants that are at all dry and filling the pots with water.

Feeding.—Thousands of plants become weakly at this season through lack of a stimulant. Other work presses, and perhaps the potting of the Chrysanthemums is put off for a week or more; then the stems near the base unduly harden, contracting the sap-vessels. Such stems never fill out properly afterwards, and I dare say many readers of *THE GARDEN* have noted this fact. Plants that have filled their pots with roots and cannot be repotted forthwith would be much benefited if given a dose of nitrate of soda at the rate of one tea-spoonful dissolved in a gallon of water, applying this an hour after giving clear water. One watering with nitrate of soda is sufficient. Several waterings with ordinary diluted manure water will be beneficial. Soot-water, unless quite clear, must not be given, as it would clog the pores of the soil.

Stopping and Potting Plants.—The cultivator will be busy now attending to the stopping of many varieties. Before pinching off any points, however, closely examine the latter, as if a tiny bud is showing there it will cause a natural break, and the resultant shoots from such breaks bear crown-buds in August, as a rule, about a week earlier than do shoots resulting from a stopping. My reference here to potting is in direct connection with stopping, as it should be done a week before or after the repotting is done.

Persistent Bud Formation.—Some varieties are very troublesome in this respect. When a bud is removed, another forms again when the new shoot is about an inch long. So to be efficacious the stopping is best done when the

new shoot is about an inch long, as it is then an inch of growth; then from the next point a budless shoot is the more likely to grow. At this stage it is very important that the ends of pointed all shoots be kept quite free from green or black flies, as they would quickly cripple them.

The Summer Quarters for the Plants.—It is not always convenient to have all the plants nicely placed in rows running north and south in one position, on account of lack of space. More frequently they have to be arranged at the sides of garden paths. They do well there, as a rule, but cause more labour in giving them proper attention. In the block a common ash-bed can be made; but if the pots are placed on it, earthworms will soon come through the ashes and enter the pots. Place tiles or slates on the ashes, and the pots on the tiles. The latter are porous, the slates not

so, instead of which, however, being rather an awkward arrangement. A few points of bone-meal to six pence, an 8-ounce portion of wood-ashes in a five-bushel and an 8-ounce concentrated artificial manure added according to the special directions given with it, I do not favour the mixing of soot with the compost, as it clogs the pores. The naturally strong growing varieties firmly, and the more weakly growing ones less firmly. Leave ample room for watering and timely top dressings. Use the compost in a medium state of moisture, syringe the plants twice daily for three days, then water the soil. *Arum.*

THE GIANT VIRGINIAN SPEEDWELL.

Among the herbaceous version of the *Veronica* or *Speedwells* there is not a nobler plant than



A BED OF THE GIANT VIRGINIAN SPEEDWELL, *VERONICA VIRGINICA*

so porous, so it is advisable to scatter a very thin layer of fine ashes on the slates; then surplus water will drain away freely. When boards are available, they may be used.

The Final Potting.—This is the heaviest work in connection with the cultivation of the Chrysanthemum. The shifting of the plants to larger pots in their earlier stages does not take up much time, but the final potting does, so that ample time should be allowed for the work to be properly done. Although large pots are used, do not put in more roots than is absolutely necessary, but place them carefully; this is an important point. Thoroughly mix the rough parts of the compost with the fine, and when engaged in the work of potting, regulate the proportion of the parts and further. *Flowers* (continued from the

the giant species shown in the accompanying illustration. As will be seen, the flowers-stems rise to a considerable height, usually about three feet, though under exceptionally good cultivation they may go to nearly five feet. The plants, which usually open during July, are white here in colour, though they vary somewhat, some being quite white and others a good blue. It is a native of North America, and was introduced to this country as long ago as 1811. For filling a large bed, such as the one illustrated, the *Veronica* is an excellent plant, but it also makes a fine group in a mixed border. Some time or other plants, according to the width of the border, should be planted together. It requires a deep dry dog and well manured soil, which should, however, be well drained. *G. H. S.*

NEW PRIMULAS AT THE EDINBURGH BOTANIC GARDENS.

THROUGH the kindness of Professor Bayley Balfour, I had recently the privilege of examining his wonderful collection of Primulas in the Royal Botanic Gardens of Edinburgh. Among them was the new

Primula gracilentia, which has flowered this year for the first time in cultivation. It proves to be a better plant than was at one time anticipated, and may well be received with favour by those who like the section to which it belongs—that of *Muscarioides*. It has deep lilac flowers, which are arranged in the spicate inflorescence with deflexed sessile flowers, which are features

tested. Its future is probably in the direction of pot cultivation. This pleasing Primula was not included in the papers given at the Primula Conference in 1913.

P. brevifolia.—At the Primula Conference of the Royal Horticultural Society in 1913, Professor Bayley Balfour, whose papers formed a contribution of the utmost value to lovers and students of the Primulas, in speaking of the Chinese species, mentioned at that time that not one of the lovely *Amethystina* section was in cultivation. He has soon remedied this deficiency by obtaining *P. brevifolia*, one of this section, which was in bloom at the time of my visit. The section *Amethystina* may be said to be a development of that called *Soldanelloides*, the plants in which have the sessile flowers of the *Muscaroid* section with a slight attempt at pedicels. The section *Amethystina* has the drooping flowers, but longer

It was one of Mr. George Forrest's finds, and comes from the Mekong-Salween Divide in China. S. ARNOTT.

NEW AND RARE PLANTS.

AWARDS OF MERIT.

Daphne arbuscula.—An exquisitely beautiful and rare species from Transylvania, of which, unfortunately, more than one plant bears the name, the much less beautiful *D. Verlotii* occasionally doing duty for the true plant. The latter has a leaf growth intermediate between *D. rupestris* and *D. Cneorum*, the stems terminated by clusters of fragrant, lilac-coloured flowers. As shown the plant was not more than 4 inches high, the miniature bush almost hidden by the clusters of flowers. From Mr. G. Reuthe, Keston, Kent. (See illustration.)

Clematis aphylla.—A species of rare botanical interest rather than of high garden merit, the fragrant, greenish white flowers occurring in the leaf-axils at intervals on dark green, Rush-like stems.

Ceanothus rigidus (vera).—The name "vera" is employed advisedly to distinguish this from a very inferior plant bearing the same specific name and almost universally sold for it. The small, shining leaves are obovate or broadly cuneate and obscurely toothed, the bushy, erect, rigid stem growth being densely furnished with rich purple blue flowers of a very distinct shade. These two were shown by Miss Willmott, Warley Place.

Lælio-Cattleya Anaconda (L.-C. Pall's × *C. dowiana* Rosita).—A very beautiful and distinct hybrid. The sepals and petals are of old gold colouring; lip deep crimson. A cultural commendation was also awarded. From Baron Bruno Schröder, The Dell, Egham.

Lælio-Cattleya Fascinator Mossiæ var. *Imogene* (L.-C. *Fascinator* alba × *C. Mossiæ reinckiana*).—The sepals and petals are pure white and of good substance; lip crimson. From Messrs. Flory and Black, Slough.

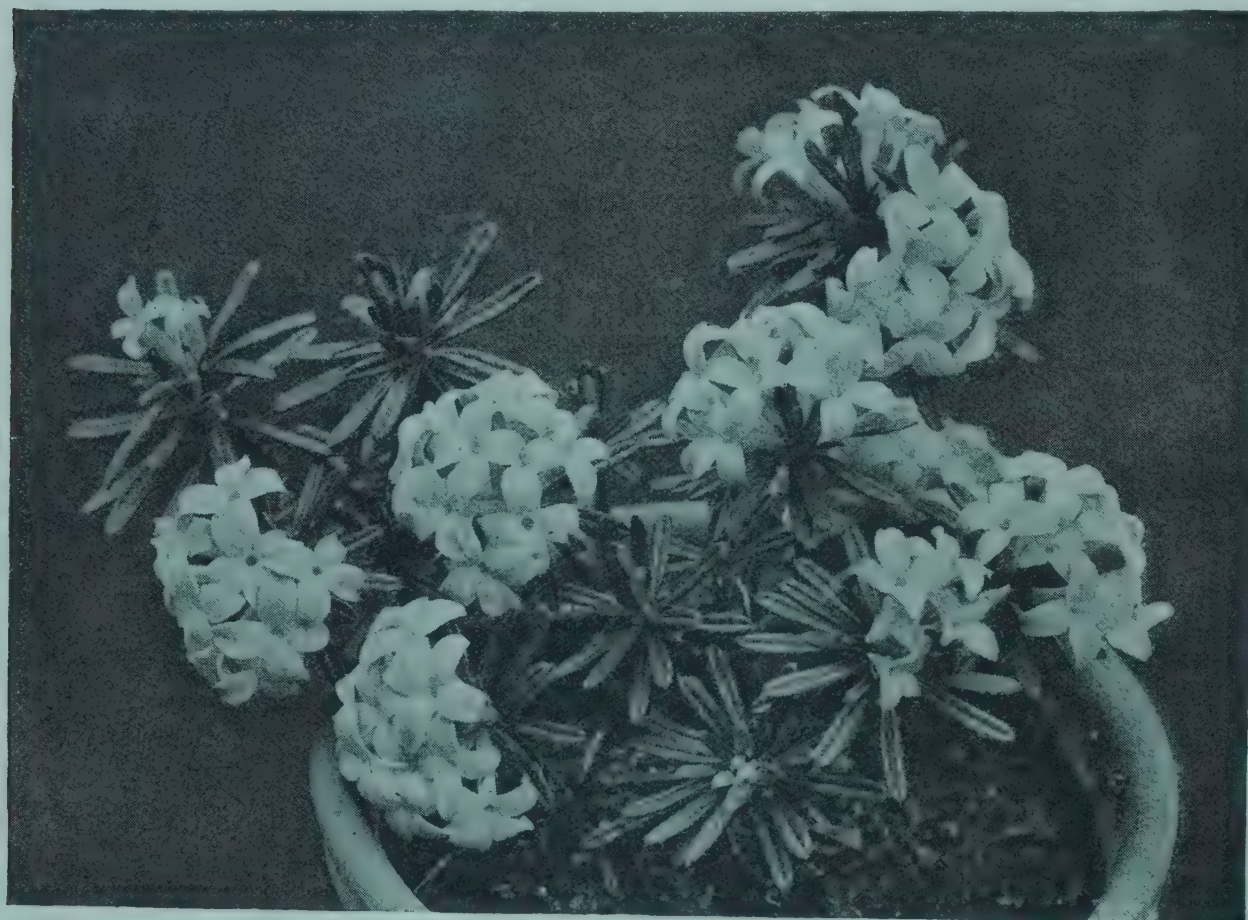
Tulip Marconi (Darwin).—The colour is deep purple plum, a pronounced white base dominating the interior of the flower. Exhibited by Messrs. Waterer, Sons and Crisp, Bagshot and Twyford.

Tulip Mirvana (Cottage).—A mingling of rose and bronze in a very showy flower. The base of the flower internally is greenish and contrasts well with the other colour.

Tulip Winner (Cottage).—Of rose and white colour; very handsome.

Tulip Empire (Cottage).—A rich golden yellow self in a flower of splendid proportions. These three were exhibited by Messrs. Walter T. Ware and Co., Bath.

The whole of the above-named novelties were exhibited before the committees of the Royal Horticultural Society on May 11, when the awards were made.



DAPHNE ARBUSCULA, A DWARF SPECIES WITH FRAGRANT, LILAC-COLOURED FLOWERS.

of the better-known species of the section. The flower-stem is prettily clad with small hairs, and the stalked leaves are oblong in form. The individual blooms have a fringed effect, from the presence of a short tail on each petal. So far, *P. gracilentia* has not been tried outdoors, but it is likely that it will require protection from winter wet—a protection most of the Primulas of the section appear to need.

P. florida.—This I had the opportunity of seeing in bloom for the first time in cultivation. It is, Professor Balfour says, allied to *P. incisa* of the *Soldanelloid* section. The flowers, which are short-stalked, have a purple blue corolla and a calyx covered with farina. The blade of the leaves is ovate, on a long stalk, and is covered beneath with white farina. *P. florida* is a remarkably pretty plant, but its adaptabilities as an outdoor plant in this country are not yet properly

pedicels. *P. brevifolia* is a lovely plant, one, indeed, which gives one a feeling approaching ecstasy as we look upon it when in flower. Imagine a plant with short, pretty leaves with a horny margin, and so beautiful in their formation and appearance as to be really delightful in themselves. From this rises slender, yet sturdy stems, bearing trusses of from six to twelve drooping purple blue flowers of the most exquisite texture and shape. The form of the flowers reminds one of those of the *Satin Flower* (*Sisyrinchium grandiflorum*), but of a more beautiful colour, and of exquisite texture and substance. These are on longish pedicels, and give one the impression he is looking at the glorified flowers of a *Soldanella*. Should *P. brevifolia* prove hardy enough to stand our seasons, we may look forward to the advent of one of the most exquisite plants in a wonderfully beautiful genus to our gardens.

SEASONABLE NOTES ON VEGETABLES.

THE present drought is having its effect upon the various kitchen garden crops, preventing the quick and regular germination of seeds and checking the progress of other crops.

In sowing seeds such as Turnips, Lettuce, Radish and all the Brassica tribe, it is a good plan to thoroughly soak the soil before sowing, as this hastens germination and accelerates the growth of the seedlings in their early stages. In the case of seeds to be sown in drills, first draw the drill, then water it with a rosed water-pot, wait half an hour, and then sow the seeds, covering them at once in the usual way. In the case of seed-beds, thoroughly soak the soil when preparing it for the seeds. Do this overnight, finish off the beds, and sow the seeds next morning. Shade the beds, either with mats or green boughs, until the tiny plants are showing through the soil, when the shading material should be removed to strengthen the growth of the seedlings.

Hoeing and Mulching.—Among all growing crops the hoe should be kept moving. Stirring the surface of the soil does so much to conserve the moisture in the ground that this detail should not be neglected, apart from its value in keeping down weeds. The mulching of various crops, such as Peas, Beans and Cauliflowers, should not be neglected as long as the dry weather lasts. If so, the foundation for mildew might be laid in the Peas, black fly among Broad Beans, and a check to growth in the Cauliflower crop. Half-decayed stable manure is the best material. A good substitute is a compost of decayed vegetable refuse, old potting soil and wood-ashes, with an occasional handful of quicklime added as mixing proceeds. Spread this compost around the plants 2 inches thick, when it will not only conserve the moisture in the soil, but also improve the soil for future growth.

Asparagus.—Now is the time to assist the growth of the plants—especially those in newly made beds—with liquid manure. After a thorough soaking, apply a mulch of half-decayed horse-manure. It is not yet too late to sow seeds in small pots in a cold frame to provide plants for putting out next year. This is probably the quickest way to establish a bed. Thin the seedlings to one plant in a pot, and plunge the pots in ashes at the foot of a west or north wall, where they will require less attention as regards watering than when in the open.

Broad Beans.—Make the last sowing of these, pinch out the points of those plants well in flower, and syringe with an insecticide those that are infested with black fly. Where the pods are swelling, thoroughly soak the roots with liquid manure.

Cauliflowers.—Put out the plants as fast as they are ready, taking those which are small rather than allowing the plants to become too large, as these suffer so much more from a check to growth in lifting than when moved in a small state. Those not planted with a trowel should be puddled and carefully dibbled in with fine soil about the roots. I prefer, however, to plant with a trowel; the roots are so much better spread and covered with fine soil. Allow plenty of space, well water, and mulch afterwards.

Sow seeds of Early Giant and Mammoth for future supplies. Dust the soil with soot before the plants appear.

Celery should be planted as fast as the seedlings are ready. Much harm may be done to the future progress of the plants by neglect in getting them into the trenches. The growing of double rows is economy of space, and with care succeeds; but where possible I favour the single-row plan. A free water supply after planting is essential. A steady, uninterrupted growth from the start is the best way to avoid pithy leaves in the future.

Lettuce.—The supplies of all kinds should be kept up by fortnightly sowings in rows, where it may be more convenient to thin out the plants, allowing those remaining to mature in the rows, than to plant all afresh from seed-beds. To grow succulent Lettuce during the summer, much moisture is required. Apart from frequent soakings at the roots, it is wise to sprinkle the plants overhead nightly, as these cool conditions encourage freedom of growth.

Radishes should be daily available. To obtain them small and tender, weekly sowings should be made of the various forms of the French Breakfast type. Shading until the seedlings appear and daily moistening afterwards are the chief points to ensure success.

Onions and Leeks recently planted should be daily syringed during dry weather to encourage freedom of growth. Dust the plants occasionally with soot, even if there is no sign of mildew on them. The soot encourages growth.

Runner Beans put out recently will require attention in seeing that the plants are made secure to the supports. Do not overcrowd the growths, but thin out laterals where too many are inclined to grow.

Swanmore, Hants.

E. MOLYNEUX.

APPLES AT SWANMORE PARK, HANTS.

IT is now about twenty-five years since a new orchard of six acres at Swanmore was devoted to the culture of Apples, and was planted principally with bush trees of what were considered the best varieties at that time. It has been my privilege and pleasure to see these annually for some years, and so impressed was I this season with the promising condition of the whole of the trees that I am induced to send a few notes anent them. There are few men who take a keener interest in or know Apples better than my friend Mr. E. Molyneux, and his name in connection with this branch of fruit culture alone is known far and wide.

I am bound to confess that when I paid my first visit to Swanmore some years ago (it might have been I was expecting too much), I was a little disappointed with the appearance and growth of the large majority of the trees, and I think, if I remember rightly, expressed myself to that effect; but now I am as much pleased and astonished at their healthy appearance. Practically every variety of tree on May 1 was studded with trusses of bloom just bursting, and considering this orchard was very heavily cropped last year with fruit of the finest quality, it is all the more remarkable.

The secret of such quick improvement is no doubt due, to a great extent, to two causes. One is thoroughly trenching between the trees, and working in plenty of good farmyard manure and other suitable material, thus giving the roots a free run, which undoubtedly is most essential in this particular position, as both the top soil and sub-soil are of a very heavy and retentive nature. The second is cleansing the trees from moss and lichen. This extraneous vegetation proves troublesome, due largely to the condition of the soil and locality, no doubt; but from whatever cause, the wood was badly infested. At the time of my visit not a particle of live injurious growth could be seen, and, indeed, there was some difficulty in finding a small portion which had been killed.

About ten days prior to my visit the whole of the trees had been thoroughly sprayed with stone lime wash. Nothing could have done its work more effectually without fear of doing the slightest damage. It is a cheap and safe remedy, within the reach of all, and one I hope to adopt in the future. This, of course, will apply to all fruit trees. Even when in full flower, Mr. Molyneux assures me, no harm is done if it is used at the proper strength. The proportions recommended are a pound of fresh lime to a gallon of water, and this should be strained and then sprayed on with a syringe or suitable machine.

Upwards of eighty varieties are grown here, but only sufficient of the large majority for comparison. Those favoured most are, naturally, varieties which do best in that locality and find a ready sale. I think if Mr. Molyneux was pressed to name his favourite, he would without much hesitation say Bramley's Seedling. Though I do not think it has behaved quite satisfactorily as to its keeping during the past season, which, I think, was pretty general, this is planted in large numbers, both as standards and in bush form, and nothing could be more promising. Other favourite kitchen varieties are Lord Grosvenor, Norfolk Beauty (highly thought of), Grenadier, Mère du Ménage, Peasgood's Non-such, Warner's King and Gascoigne's Scarlet. Among the favourite dessert sorts are Cox's Orange Pippin (exceedingly well grown), Lady Sudeley, Worcester Pearmain, James Grieve, Ben's Red and Allington Pippin. Several new and little-known varieties are on trial, such as Arthur Turner, Rev. W. Wilks, W. Crump, Crawley Beauty, The Houblon, Paroquet, Crimson Bramley, Sir John Thornycroft, Ontario, Early Victoria and many others.

Of special interest in the orchard are two small trees of Mank's Codlin, each about seven feet in height, on their own roots, which have been planted between twenty and thirty years. Some good bushes of Blenheim Orange, grafted six years ago, were full of flower. This variety has the reputation of not fruiting early; but to my knowledge there are many types of this Apple. The best only should be grown.

Swanmore is much exposed to wind, and provision was made at the time by planting a hedge of *Thuya gigantea*. This is now about fifteen feet in height, two feet in width, and perfectly ridged, having been regularly kept cut. The stems are as thick as one's thigh, and, planted 3 feet apart, one can easily imagine what a fine screen this makes. The owner, Mr. W. H. Myers, must, I am sure, feel highly satisfied with such a fruitful spot on his fine estate, and Mr. Molyneux is to be congratulated on such an achievement.

Elstree.

E. BECKETT.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Cucumbers.—Feed liberally with manure those plants which are carrying full crops of fruit, and add small surface-dressings of loam and decayed horse-manure when roots appear on the surface. Remove all surplus growth regularly, and lay in promising shoots to continue the supply of fruits. It is not a good practice to keep the old plants fruiting too long, as the quality of the fruits deteriorates as a consequence. Therefore raise another batch of plants to replace the old ones when these are showing signs of exhaustion.

Late Strawberries in Pots.—Plants growing on shelves under glass must be well supplied with water at the roots. It will be of considerable benefit to top-dress them with a mixture of soil and manure. They should, if possible, be grown in a house by themselves, where they can be shaded during the hottest part of the day. During very bright weather they must be sprayed with rain-water two or three times a day, and the atmosphere should be kept moist by frequently damping down the bare surfaces in the house.

Autumn-Fruiting Strawberries.—It is possible to obtain a second crop of fruits from old forced plants by potting on some of the plants into 7-inch pots. Select some of the healthiest and remove all the old leaves. As a safeguard against red spider, the foliage must be dipped in an insecticide. The ball of roots ought to be carefully shaken out before potting. A compost of loam, manure from an old spent Mushroom-bed and brick rubble will be suitable. Partly plunge the pots in ashes in a sheltered position outdoors, and carefully water the plants till the pots are filled with roots. Syringe them vigorously both morning and afternoon, and to keep them free from red spider and mildew they must be syringed occasionally with a mixture of soft soap and sulphur.

Plants Under Glass.

Begonia Gloire de Lorraine.—Pot the plants on into larger pots as they become ready. The earliest-struck plants will require 7-inch pots in which to flower. Another batch of cuttings may be put in for flowering in smaller pots. These late-struck plants are very useful for table decoration.

Hydrangea Hortensis.—The plants will now be developing their flowers, and should be liberally fed with manures. The blue varieties must be watered with the preparation "Azure," or the colour of the flowers will be disappointing.

Aspidistras.—It is sometimes necessary to divide these, potting up the most suitable portions. They ought not to be overpotted, as this would cause them to lose their colour. After potting, place them in a warm, moist house where they will get plenty of light.

The Flower Garden.

May-Flowering Tulips.—The bulbs which are to be removed from beds which are to be occupied with summer-flowering plants must be carefully lifted and replanted in a piece of well-prepared ground. These Tulips are invaluable for indoor decorations, and a good batch should be grown specially for cutting. Nowhere are these beautiful Tulips seen to better advantage than when grown in grass, but the ground must be specially prepared for this purpose.

Summer Bedding.—The lateness of the spring bedding plants will have a tendency this season to delay the putting out of the summer-flowering plants. Therefore, when the time for bedding out arrives, it will be necessary to get the work finished with the least possible delay. Much may be done to enhance this work by having everything ready to hand. The furnishing of the mixed border may be proceeded with at once. Such subjects as Calceolarias, Dahlias, Arctotis, Asters, Verbenas, Salpiglossis and nearly all kinds of annuals may be planted now.

Japanese Irises.—Those who have a garden naturally suited to the culture of these beautiful Irises are to be envied, as probably Iris Kämpferi

is the most popular and beautiful of all the Irises. They are without doubt more at home when grown on the banks of streams or pools, and if it is intended to plant them, it must be seen to that the soil is quite suitable for their requirements. They enjoy a rich rooting medium, with plenty of rich, well-decomposed manure. Imported plants may now be procured and planted.

The Hardy Fruit Garden.

Pears.—These are promising a very heavy crop. Should there be a continual spell of dry weather, trees on walls must be watered. In districts where the Pear leaf-blisters are common, it is wise to anticipate attacks by spraying the trees with some reliable remedy at regular intervals.

Mulching.—The rainfall for the month of April was much below the average, and this, combined with drying winds, considerably dried the surface soil. This is a reminder of the immense value of mulching early those trees which have their roots near the surface. A special effort should be made this season to mulch as many trees as possible, for, with the shortage of labour, the watering of fruit trees outdoors will probably have to be neglected.

The Kitchen Garden.

Potatoes.—The early planted Potatoes will now be growing freely, and attention must be paid to earthing them up. At the same time the hoe should be worked freely between the rows. Should frost be imminent, a light covering of dry litter will be necessary to protect them.

Leeks.—The main batch of these valuable vegetables may now be planted out. For ordinary purposes the plants can be put in holes about a foot deep. The ground must, however, be well manured and deeply dug. Plant them about a foot apart, and put only sufficient soil in the hole to cover the roots.

Beet.—The earliest sowings of Turnip-rooted Beet will now be ready for thinning. The main sowings of this crop may be made now. Sow in shallow drills about fifteen inches apart. Thin the seedlings, as soon as they are large enough to handle, to 9 inches apart. Other crops which will now be in need of thinning are Parsnips and Turnips. This important work must not be neglected, or the crops will suffer.

E. HARRISS.

(Head-gardener to Lady Wantage.)
Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Vegetable Marrows.—The main crop should now be planted out with the protection of hand-lights if available; but, failing this, a few branches of evergreens will do all that is required. To succeed well, the ground should be properly prepared beforehand, but excellent Marrows may be had from plants growing on rubbish-heaps and other such places if accommodation is very limited. Hot-beds where the crops are over are ideal places on which to plant Marrows, especially if the frames can be allowed to remain until the plants get well started into growth.

Celery.—It is now time the earliest crop was planted out. If trenches were prepared and manured as advised previously, they will be in good condition to receive the plants. Lift the plants carefully with as much soil adhering as possible and, after planting, give a good watering to settle the soil around them.

Autumn-Sown Onions.—A number of these will perhaps be showing flowers, which should instantly be removed. To encourage a free growth, both liquid manure and artificial fertilisers must be washed in to the roots by watering, unless the weather is showery. The hoe should be used freely whenever the surface is again dry.

Radishes.—Sowings ought to be made at not greater intervals than ten days or a fortnight to keep up a continuous supply of nice, small, tender Radishes. They should not be sown too thickly. French Breakfast is the general favourite.

The Flower Garden.

Tender Plants.—The more tender subjects, such as Begonias, Ageratums, Lobelias and Perillas, should be left until most of the general bedding is nearing completion, so that they will be much safer left in their frames for a few days yet, where they can be conveniently protected by replacing the lights if frost threatens.

Canterbury Bells.—Plants to flower next year may be had by sowing seed now. These indispensable plants have few equals where an early summer display is required.

Sweet Williams should likewise be sown at this date to produce plants for flowering next season.

Rock Garden.—Many plants in this garden are at their best and full of interest. Where the subjects are named—and this should always be done—the labelling ought to be gone over while the various plants are in flower, as they are then more readily identified. Small metal labels are the most inconspicuous and best adapted for this garden; but if labels are an objection, small numbered discs can be used, a key to which can be made.

The Hardy Fruit Garden.

Gooseberries.—The young green fruits being always in demand for cooking purposes, pulling should commence as soon as the berries are the size of Peas. This thinning not only helps the fruit which remains to swell to a larger size, but permits the berries developing a finer flavour. It is also essential for the well-being of the bushes that a fairly severe thinning should take place at this season. The new growth on young bushes must be regulated somewhat, with a view to the formation of shapely bushes.

Raspberries.—As established plantations of this fruit have a tendency to produce more young canes than are required for the succeeding season, a judicious thinning out ought to take place; this will help to concentrate more vigour and freedom of growth in the canes which are to be left. On light or sandy soils a mulching with litter or manure is necessary if success is to be had, as Raspberries resent anything in the nature of dry soil.

Fruit Under Glass.

Early Melons.—The early batches are now ripening their fruit, and should have an abundance of air when the weather is fine. A small amount of air ought to be left on during the night-time as well. The advantage of having separate pits or houses for the different batches will be readily seen, as cracked fruits are generally the outcome of having to bring on successional crops where one crop may be maturing its ripe fruits, and where free ventilation should be given.

Plants Under Glass.

Gloxinias.—The early plants now commencing to flower should be removed to a house where they can have slightly drier treatment. They will not object to even an ordinary greenhouse if the temperature is never allowed to drop below 50°. Feeding with manures must almost cease, except for an occasional application, which should be given in a weak state.

Boronia megastigma.—As this small, fragrant flowering plant passes out of bloom it ought to be pruned slightly by cutting the growths back to about a third of their length. Plants requiring potting should be dealt with, using a mixture largely consisting of peat and silver sand. The treatment given to Azalea indica will suit this plant.

Azalea mollis, after having flowered indoors, ought to be plunged in ashes or soil outdoors in the shelter of a hedge enclosure or wall, but should not be shaded in any way from the sun's rays. Some of the plants will be helped by a top-dressing of peat, to which some easily assimilated fertiliser has been added. Close attention is required in regard to watering, and during very bright weather a spraying with clear water will be of great help.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine,
Bart.)
Castlemilk Gardens, Lockerbie, N.B.

PYRETHRUMS AND DELPHINIUMS.

DURING late May, June and the early days of July the herbaceous border owes not a little of its beauty to the modern varieties of the florist's Pyrethrum and Delphinium, or Perennial Larkspur as some delight to call the latter. Although the garden at this season is more interesting than at any other period of the year, the plants under notice stand out from all others, the exquisite colours and stately form of the flowers attracting the attention of all. In appearance the Pyrethrums and Delphiniums are totally dissimilar, yet they have one point in common, viz., that with proper care and treatment after flowering they can be induced to give us a second and bountiful display of flowers in the autumn without serious detriment to the plants themselves.

The value of these flowers in the garden during summer and autumn cannot well be over-stated. Since some of our hardy plant specialists took them in hand and commenced crossing and selecting the best obtainable, some very beautiful varieties have been raised, and it is now possible to obtain sorts as varied in habit and general contour as they are in colour. In the Pyrethrums we have both single and double forms, and they are exceedingly popular, though I must confess to a partiality for those with single blossoms, the beautiful glowing crimson-scarlet James Kelway being an ideal flower of this section. Apart from their use in the herbaceous border, I think these modern Pyrethrums might well be grown in large lawn beds, one variety massed in a bed. I have seen this attempted on one or two occasions, and although the work was only done in a half-hearted manner, the effect was excellent. As already stated, there are now so many beautiful varieties to select from that quite a good colour-scheme of beds might be worked out on the lines laid down by Miss Jekyll in her book, "Colour in the Flower Garden." Nor must we overlook the value of Pyrethrums as cut flowers. Their slender, graceful stems are ideal for arranging in vases and large bowls, and they last quite a long time in water. This is where they score over the more stately Delphiniums, which so soon drop their exquisite spurred flowers when cut.

The Delphiniums, however, are equally useful, or even more so, in the garden. It is difficult to imagine what our herbaceous borders would be like without the sentinel-like groups of these stately plants, the colour of whose blossoms runs the whole gamut of the many shades of blue. There is, of course, a white Delphinium, but only once have I seen really good white spikes of it, the usual result being flowers of a dirty creamy white that is far from pleasing. At Kew the Delphinium is used for massing in some of the large lawn beds, and the effect is exceptionally pretty, especially when a background of some dark-foliaged trees is secured. In a Yorkshire nursery, a few years ago, I saw a long, broad pathway bordered on each side with Delphiniums and Pyrethrums, the last named being grouped in large masses of one colour in front of the Delphiniums, and the effect was decidedly good. At the outset mention was made of the fact that both Pyrethrums and Delphiniums can be induced to flower again in the autumn, and the work neces-

sary to bring about this desirable end is not very difficult or irksome. Before seed has had an opportunity of forming, they must be cut down quite close to the ground, leaving the natural basal foliage of the plants intact. After lightly stirring the soil around the plants, place a 2-inch-thick layer of manure around them. If this work is carried out immediately after the first flowering, practically all the Pyrethrums, and many of the Delphiniums, will give us their beautiful and pleasing flowers again in September.

B. B.

THE AMARYLLIS AFTER FLOWERING.

MANY growers fail miserably with this fine bulbous plant after they have flowered it once. The reason is not far to seek, as a rule, for in most cases, immediately the blooms fade, the pots are placed under the stage or in some out-of-the-way corner, and little further attention is given the plants until the time comes round for them to flower again. Then, of course, disappointment is almost certain, and wonder is expressed at these expensive bulbs failing after doing so well the first year. In almost every case the fault lies with the grower, for under proper treatment these plants will flower every spring. I have grown them for many years with very satisfactory results, and the following is my method.

As a rule, the plants while in flower have a lower temperature than is required while they are making their growth. Immediately, therefore, the flowers fade, the plants are moved into a house with a temperature ranging between 65° and 70°. Here they make strong, healthy growth, and, when necessary, gentle feeding with liquid manure is administered at this stage. After flowering, too, is the best time for repotting, if this is necessary. I say "if this is necessary," for it is seldom that the Amaryllis requires a shift. I have grown fine bulbs for four or five years in 5-inch pots with only an annual top-dressing of rich soil, and judicious feeding with liquid stimulants while making their growth. It is a mistake to use large pots. The largest bulbs have ample room in the 7-inch size, while very good bulbs can be accommodated in 6-inch pots. When no repotting is necessary, remove a little of the surface soil and make up with fresh rich compost, and then, as directed, place in a temperature of 65° to 70°.

Careful watering and a daily sprinkling overhead with tepid water are very beneficial while they are making their growth. After full growth has been attained, which is usually about the middle of June with plants that flower in February and March, the plants are removed to the open stage of a greenhouse and placed in as sunny a position as possible. I continue to water regularly, and also give twice weekly liquid made by stirring a tablespoonful of Ichthemic Guano into a gallon of water. This is continued until the foliage begins to change colour, when all stimulants are entirely stopped and water gradually diminished. It is wrong, however, to keep the soil dust-dry, for by doing so the roots perish; but if a little water is given occasionally, the whole remains fresh and ready to start into full vigour when the flower-spikes begin to push up.

After the foliage becomes yellow, the pots may be put under the stage, but some method should be adopted for preventing drip falling on the bulbs or soil. Treated in this way, a grand harvest of brilliant blossoms will reward the grower for the little trouble entailed.

Preston House Gardens, Linlithgow. C. BLAIR.

SOME FLOWERING SHRUBS OF AUSTRALIA.

IT is a singular fact that many of the most beautiful blossoms of Australia are destitute of petals, possessing anthers only, which take their place in abundant tufts or brushes. The Blue Gum (*Eucalyptus globulus*) is one of the best known plants of this kind, being cultivated all over the world for the value of its essential oil as a disinfectant. But it rarely flowers in this country, except in our mildest districts, for it does not usually produce bloom before it is seven years old, and a severe winter is likely to be fatal to it. But in South Devon we have a small tree which flowered profusely in its fifth year, and this early maturity was obtained by means of checking the sap. The strong wire used to fix the plant to a stout stake during its fourth season in the open ground cut into the bark as the girth of the stem increased, and thus ringed the bark, with the effect of a crop of early blossoms.

Eucalyptus citriodora is a variety of which the leaves rival those of the *Aloysia* in refreshing scent, and *Eucalyptus ficifolia* (the Red Gum) blossoms in its third year from seed, both its foliage and the scarlet tufts of inflorescence being decidedly handsome; while there are many *Eucalypti* which attain a great height in Australia as forest trees.

But the Wattles (*Acacias*), which are so largely grown on the Riviera and of which the golden sprays of blossom are so popular in London during the early spring, are pre-eminently Australian flowers; in fact, the Silver Wattle (*Acacia dealbata*) has now obtained the title of "the flower of Australia," just as the Rose is the flower of England and the Shamrock is typical of Ireland. Of the many varieties of Australian *Acacias*, there are only a few which are not too tall for general purposes in Britain, for they are not perfectly hardy in our climate, although they require but slight protection in winter and do not do well in a close, damp atmosphere. In fact, they should be grown as much as possible in the open air in a compost of peat, loam and sand; no manure should be added to it, as this is specially injurious to their roots. A temperature from 40° to 50° from October until the end of April will suit them, with as much air as practicable, and they should stand out of doors for the rest of the year. They usually flower in our winter or the early spring, for this is, of course, the summer-time at the Antipodes.

One of the best for an ordinary greenhouse is *A. Drummondii*, a small shrub of neat habit, which is covered in March with yellow, bottle-brush-shaped blossoms, even when only in a young state. *A. lophantha* is decidedly handsome with a mass of pale primrose yellow flowers. This plant is of very quick growth from seed, and is useful as a specimen plant among lower flowers in a flower-bed.

A. baileyana (the Cootamundra Wattle) has beautiful foliage, silvery in tint, and *A. discolor*

(the Sunshine Wattle) contrasts well with it, the leaves being dark in colour. The Golden Wattle (*Acacia cochlearis*, syn. *pycnantha*) produces handsome leaves of greater size than the rest, and sprays of globular blossoms in deep yellow; and *A. riceana* is very distinct, with long tassels of similar flowers in pale yellow.

Another group of Australian shrubs are the Callistemons, or Crimson Bottle-brushes, remarkably handsome plants bearing large carmine flowers without petals, to which the golden anthers give a brilliant effect. Quite small specimens of *C. speciosus* are covered with blossom and are very decorative, while the plant is so nearly hardy that it should be in the open air almost all the year round, except when buds are formed, when a little protection in a sunny greenhouse will bring them to perfection.

All these plants prefer a peaty compost, and they need abundant water while in growth. They may be grown from seed, but this should be sown as soon as it is received from Australia, as it appears to quickly lose its vitality. Cuttings of Callistemon, choosing ripened growths of last year, can be grown under a bell-glass in peat, sand and charcoal dust. These will produce their flowers at an earlier stage than plants grown from seed.

I. L. RICHMOND.

ORIENTAL POPPIES.

It is quite apparent that these old-world Poppies are again coming into favour in our gardens. This is undoubtedly due to the introduction of new varieties of the most delicate and beautiful shades imaginable. The variety Jennie Mawson, with large, handsome, salmon pink flowers and a purple blotch at the base of the petals, must be counted one of the most beautiful border plants in cultivation. Lady Roscoe is an attractive variety with orange terra-cotta flowers, while other varieties worthy of special note are Princess Ena, orange, flushed pink; Silver Queen, lovely silvery white, with a faint blush hue; and Carminatum, deep carmine. Their chief flowering season is from May to July, but nearly all of them flower again in September and October. It is not generally known that these gorgeous Poppies may be naturalised in groups in open meadows or orchards.

C. Q.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

THE GREENHOUSE.

HYACINTHS NOT THRIVING (*Courtenay*).—We find the Hyacinths have been severely checked owing to damage done to the roots by the bulb mite. The bulbs themselves appear to be perfectly sound and healthy in every way, and doubtless the mites were present in the soil or pots used. Care should be taken that old potting soil is not used again, and that the pots are

thoroughly cleansed or disinfected by scrubbing with carbolic soft soap or boiling water when pests of this kind are about.

PELARGONIUMS FOR INSPECTION (*Crane's-bill*).—All the young plants attacked by the disease from which your Pelargoniums are suffering should be destroyed, so as to check the spread of the disease. They have probably not been sufficiently ventilated during their growth, and have perhaps been in too moist an atmosphere, which has laid them open to the attack of Botrytis, a fungus which was possibly in the leaf-mould used.

FLOWERING PLANTS FOR FRAMES (*A. Constan Reader*).—Your further letter puts the matter in an entirely new light, and enables us to deal with the question at once. The depths given will enable you to grow and flower to perfection the Star section of Cinerarias, Balsams, single and double flowered Fuchsias as pyramidal specimens from plants raised from cuttings in the spring, herbaceous Calceolarias, Schizanthuses, Cockscombs and other plants. If you require plants for indoor decoration, in all probability Cinerarias, Fuchsias and tuberous Begonias would be found most serviceable. The last named could be started in boxes from tubers or raised in heat from January-sown seed, though the deeper frames would require temporary staging to bring the plants near the glass. These would flower till quite late in the summer. For the early autumn you might grow a selection of decorative Chrysanthemums in a reserve border, and lift and transplant in the frame before frost arrives. These would be most useful for cutting. For winter work one section could be devoted to Sweet Violets, but the frame would require filling up with a bed of soil to within a few inches of the glass. The plants could be grown in the open till September. Such frames in the winter would be ideal for growing Daffodils, Tulips (especially Darwins) and other bulbous plants for flowering in the early spring; hence may be turned to account throughout the year.

ROCK GARDEN.

PROPAGATING ONOSMA TAURICA (*Vectis*).—There is only one way for the gardener, viz., cuttings, and we believe we have frequently given it in the past, though, perhaps, not very recently. But there is only one type of cutting which is of the least service, and that is that secured with a "heel" intact. In our issue for January 23, page 42, in an article on "The Propagation of Plants," the *Onosma* was cited as an example. Take any fresh young bits of 2 inches to 4 inches long, strip them from the parent stem by a downward pull, and—keeping the knife in the pocket meanwhile—insert them without further ado. A hand-light in a cool, shaded place is the best; the plant abhors artificial heat. Use very sandy soil, an inch of pure sand at the surface of the cutting pots, and, given the right cutting, with intelligent treatment, every cutting will root within a month. Take care not to bury the heart of the cutting when inserting it.

MISCELLANEOUS.

PREVENTION OF FLIES (*F. Huli*).—Gnats (or mosquitoes) are the only troublesome flies likely to come from tubs of water, and these may be prevented from doing harm by keeping a very thin film of oil on the surface of the water. House-flies breed in rubbish and manure heaps, and these should be kept as far away from the house as possible. Spraying with poisonous substances would probably check the decay of the manure and render it harmful to plants, but the least harmful thing would be an occasional watering of the heap with a solution of one part of formalin in 100 to 200 parts of water.

INSECTS FOR IDENTIFICATION (*J. G.*).—The insects sent are weevils of the genus *Otiorynchus*. The grubs feed on the roots of Cyclamen, Pelargoniums and the like, and do considerable damage to pot plants in greenhouses. The best time to deal with them is now, while the weevils are in their perfect state and feeding on the foliage. If the plants are shaken over a newspaper after dark, the weevils will fall on to the paper, and may be collected and destroyed. They will not fly away, as their wing-cases are soldered together along the back. They hide in the soil during the day. Vines and other fruits are liable to attack.

VARIOUS QUESTIONS (*Ribble*).—The Bordeaux mixture you intend to use will be about right, though there is probably a little more lime in it than is actually necessary, the usual proportions being 6lb. of copper sulphate, 4lb. of quicklime and 40 gallons of water. The importance of dissolving the copper sulphate and making the milk of lime in separate wooden or earthen vessels must be recognised, the mixing and the making up to the exact quantity with water being done afterwards. The syringe will not be suitable, however; it must be applied as a very fine, mist-like spray, so that every part of the plant is reached and covered. There are syringes on the market which make a much finer spray than yours would do, and give a mist rather than drops of appreciable size. Arabis is often called White Rock Cress. It would perhaps be best to set aside a few plants from which to propagate your Strawberries, choosing those which have fruited well in the past. Check the runner after it has formed the first plant, and either root it in a pot or in the soil about the plant, putting it out into its permanent position as soon as well rooted. The plants may be put into nursery beds as you suggest if the ground is not available when they are ready.

NAMES OF PLANTS.—*G. B. Bassil*.—The Snowy Mespilus (*Amelanchier canadensis*).—*Rhodo*.—1, *Rhododendron catawbiense*, var.; 2 and 3, forms of *Rhododendron caucasicum*.—*A. Surrey Beginner*.—*Gazania* splendens.

Assistant Superintendent of Glasgow Parks.

Mr. James Rourke, of the Botanic Gardens, Glasgow, who was recommended by the Parks Committee of the City of Glasgow for appointment as assistant superintendent of the parks, was unanimously appointed by the Town Council at their meeting on May 13.

United Horticultural Benefit and Provident Society.

The monthly meeting of this society was held at the Royal Horticultural Society's Hall on Monday, May 10, Mr. Arthur Bedford in the chair. One new member was elected. Seven members were allowed to withdraw double their amount of interest, amounting to £26 6s. 6d. One member who had been lapsed for forty-one years withdrew his lapsed account, viz., £1 15s. 9d. The sum of £9 17s. 9d. was passed for payment to the nominee of a deceased member. Two deceased members' widows were assisted from the Distress Fund. The sick pay for the month on the ordinary side amounted to £80 16s. 3d., on the State Section £19 9s., and maternity claims to £19 10s.

Advisory Officer for Forestry for Scotland.

Dr. A. W. Borthwick, Lecturer on Forestry at the University of Edinburgh, has been appointed by the Board of Agriculture for Scotland to be their Advisory Officer for Forestry. Dr. Borthwick, who thus occupies the position held by the late Mr. John Nisbet, has had a distinguished career in his studies and in the various appointments he has held. He was Gold Medallist in Mathematics at Madras College, St. Andrews, where he was educated. At the St. Andrews University he graduated as B.Sc., and afterwards as D.Sc. On his decision to devote himself to forestry he went to Munich, where he was for three years. In 1899, on his return to Scotland, he was appointed Assistant to the Professor of Botany and Lecturer on Plant Physiology. In 1908 Dr. Borthwick was appointed Lecturer on Forest Botany to the University, and since that time he has obtained several similar high positions. He is an active member of several scientific societies, and has written many contributions on forestry. Dr. Borthwick's new appointment will be received with satisfaction by all interested in present-day forestry.

Awards to Horticultural Washes.

At the meeting of the Royal Horticultural Society on the 11th inst., the following awards in connection with the trials of horticultural washes at the Society's Gardens at Wisley were made: Highly commended.—Liquid Gishurst Compound, sent by Price's Patent Candle Company, Battersea; Jeyes' Winter Wash, sent by Jeyes' Sanitary Company, Limited, 64, Cannon Street, E.C.; Morlar Winter Wash, sent by Messrs. S. P. Charges and Co., St. Helens, Lancs; Voss' Winter Wash (caustic soda, 1lb. to 10 gallons), sent by Messrs. Walter Voss and Co., Limited, Carlton Works, Millwall, E.C. Commended.—Cooper's Winter Wash (Vr), sent by Messrs. W. Cooper and Nephews, Chemical Works, Berkhamsted; Woburn Bordeaux Mixture and Woburn Winter Wash, sent by Messrs. Walter Voss and Co., Limited, Carlton Works, Millwall, E.C.; Evans' Winter Spray, sent by Mr. R. E. Evans, Stratford-on-Avon; Standard Lime (Sulphur Solution), sent by Messrs. Walter Voss and Co., Carlton Works, Millwall, E.C.; and Winter Wash and Soluble Paraffin, sent by the Acme Chemical Company, Limited, Vale Road East, Tonbridge, Kent.

* * * The Yearly Subscription to THE GARDEN is: Inland 6s. 6d.; Foreign, 8s. 9d.

THE GARDEN.

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MAY 29, 1915.

NOTES OF THE WEEK.

The Shetland Pony at the Chelsea Show.—Those who visited the Chelsea Show last week will be interested to learn that the little pony, Café Caramel, led around by Viscount Dalrymple, collected during the three days £125 1s. This amount is to be equally divided between Lady Lansdowne's Fund for Officers' Families and the Royal Horticultural Society's War Relief Fund. We understand that the sum taken at the gates for admission to the show was about one-half of that paid last year. Considering the first day was exceedingly wet, the result is, we think, satisfactory.

The Royal Horticultural Society's War Relief Fund.—At a recent meeting of the Council it was announced that Her Majesty Queen Alexandra has consented to become a patron of the War Horticultural Relief Fund. At the same meeting the Council appointed a Relief Fund Committee, consisting of the following members: Field-Marshal Lord Grenfell, Sir Harry Veitch, Mr. Gurney Fowler, Colonel Lockwood, Mr. Arthur Sutton, Mr. R. Hooper Pearson, Mr. F. Keeble and the Rev. W. Wilks.

Sowing Late Annuals.—Any bare spots that exist in the borders or other parts of the flower garden should be sown with annuals of some description. Although they will be later than those from ordinary sowings, they will give some flowers in the late autumn which will be valuable for garden decoration or for cutting.

The Butterfly Viola.—The beautiful Viola Papilio is one of the most decorative plants, either for the rock garden or the border, and at the present time it is a mass of blue flowers, the petals of which resemble the wings of a butterfly. It commences to flower early in the year, and is one of the last to remain with us. There is also a beautiful white variety which is equally as floriferous. Both come freely from seed.

The Purple-Flowered Broom.—As the majority of Brooms have flowers that are white or yellow, or intermediate between the two, those of Cytisus purpureus give us a distinct and welcome change. A shrub of dwarf, semi-prostrate habit, its slender and graceful branches are at the present time studded with bright pinkish purple flowers. On the front row of the shrubbery or in the bolder parts of the rock garden it shows off to

good advantage. It is readily raised from seeds or cuttings. C. purpureus is a native of the European Alps, and was introduced to this country in 1792.

Major Cautley, D.S.O., Killed in Action.—Sweet Pea lovers will learn with deep regret of the death of this gallant officer, who was recently killed in action while serving with the British Expeditionary Force. He was a most

the attention of visitors. As the bush is of vigorous habit, this Lilac is an ideal one for the garden, while the blossoms, in a cut state, are excellent for decorating the dwelling-house.

The Spanish Squill.—Like our native Bluebell, which has so delighted numerous visitors to Kew this spring, the Spanish species must be massed if its full beauty is to be enjoyed. Solitary spikes, or even little colonies of a dozen or so, beautiful as they are, give no suggestion of the effect produced when the nodding bells of blue flowers are in goodly company. Although blue is the normal colour, Scilla hispanica is often a variable plant and produces flowers paler or deeper in colour than the type. Flowering a little later in the season than the common species, it is also valuable for prolonging the Bluebell season.

Dividing Heucheras.—Often is it said that owners of gardens cannot get this decorative genus to produce many flowers. This applies chiefly to the well-known and favourite H. sanguinea. When such is the case, the plants should be lifted as soon as the flowering is over and pulled into small pieces, for, if clumps of it are allowed to remain, the flowers become fewer and the plants altogether unsatisfactory. This operation should be done during the first spell of showery weather. In dividing the plant, reject pieces with woody stems, such as those found in the middle of the old clumps. The divisions should be planted about a foot apart, either in beds or the front row of the herbaceous borders, where they are intended to flower. If the weather is dry, a good watering should be given occasionally. If treated in the way mentioned, a good display will be obtained from plants that have been a partial or complete failure.

New Zealand Spinach.—Those who experience difficulty in securing ordinary Spinach during the late summer and autumn months should make a small sowing of New Zealand Spinach at once. This is a quick-growing and rapidly spreading plant, and a single row will spread at least 2 feet each way; hence it must have plenty of room. It will thrive in almost any soil, and give a good supply of leaves during the summer.



A BEAUTIFUL GROUPING OF THE SPANISH SQUILL
(SCILLA HISPANICA).

lovable man and a great Sweet Pea enthusiast. It was in September last that he was awarded the D.S.O.

A Beautiful Lilac.—We do not remember seeing that glorious Lilac Souvenir de Louis Späth in better condition than it is this year. The large panicles of deep rosy red flowers are now opening in profusion and never fail to attract

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

A Rare Primula.—Miss Amy Cameron, Trinity, Duns, sends us a photograph of *Primula tosaensis* which she saw flowering in Dr. Macwatt's garden at Duns. The plant is quite new to us, and, so far as we know, has never been illustrated before. The photograph shows well the character of this newly introduced *Primula*. The flowers are a very pretty magenta pink colour. It belongs to the Section *Reinii*, and comes from Sikoku, Japan.

Perpetual-Flowering Carnations.—I am always interested in Mr. R. P. Brotherston's valuable notes on these popular plants, and not least in those appearing on page 234, issue May 15. But I only intend to refer to the paragraph dealing with "Old Plants to Flower Next Winter." Owing to a severe and long illness, I have been prevented from potting on some rooted cuttings as they ought to be potted, so I am having my old plants cut back as suggested by Mr. Brotherston. This course I had decided on before his notes appeared in *THE GARDEN* in a previous issue to that of May 15. His intention, however, gives one encouragement to go ahead with the cutting back. There is plenty of space for top-dressings and feeding in due course, and the plants are very healthy. All being well, I hope to have, in due time, more blooms, though on an average smaller, than I obtained from the young plants. Judicious syringing in hot weather will, I feel sure, prove very beneficial to the young shoots.—G. G.

How to Flower *Wulfenia carinthiaca*.—This plant is proverbially obstinate in the matter of flowering. I have a plant on my rockery in full flower now with seven fine heads and others coming; it made a sickly attempt to flower last autumn, but conditions were too much for it. This particular plant, grown from seed (Thompson and Morgan's), was put into its present quarters in December, 1913. It grows on a bank of very rough and clayey soil with an admixture of chalk, with a top layer of grit and leaf-mould to a depth of about nine inches. It is in full sun from April to August, and after that gets afternoon sun only. It has had one or two applications of weak liquid manure during the spring. Other plants of it on lighter soil have done little. It evidently likes a rather stiff and retentive subsoil, like *Primula denticulata*, which flourishes well in the same position. This part of my rockery was most unscientifically prepared, and was only meant at first for surface-rooting plants, yet a number of other things do very well there—from which I gather that quick drainage may be overdone sometimes.—L. H. EVANS, *Goodnestone, Canterbury*.

Propagating Azaleas from Cuttings.—A fact not fully recognised is that Indian Azaleas can be readily propagated by means of cuttings. They

are now so generally increased by grafting that very few cuttings are struck. An exception must, however, be made in the case of the small-flowered variety *Hexe*, which is mostly struck from cuttings. In days gone by, when many Azaleas were propagated in this country, increase by means of cuttings was very generally followed. The best cuttings are formed of the current season's shoots taken when they are in a half-ripened condition—that is, just before they become woody. The pots prepared for their reception should be quite clean and effectually drained to within a couple of inches of the top. The remaining space must be filled with a mixture of peat and sand, passed through a sieve with a quarter of an inch mesh, and pressed down very firmly. Some propagators prefer to put a

word "great" or its equivalent. In my own case, we paid one penny for each queen wasp killed till as late as Whitsuntide each year, and one year I paid £9 to workmen and their families. Within a radius of a little more than a mile from the gardens, we destroyed 200 nests at sixpence per nest. The same summer I was driven out of a Peach-house by the hordes of wasps (the only time I remember them attacking me direct in such circumstances). The Grapes and wall fruits were eaten wholesale. The cost of nets was great, and through them the wasps ate their way. This was, of course, the worst year; but in that district—the South—the pest caused nearly half as much damage, taking the average year by year. In North Lancashire I experienced trouble with the wasps to nearly the same extent. In Warwickshire they were as bad. A fairly wide experience. It is freely admitted that wasps destroy many insects and do some good in this way; but, as the Editor truly says in his footnote, they do much more harm. In town gardens the ravages are not nearly as great as in the country districts. Now, a word as to the way to destroy nests. We find the nests in the daytime by following the wasps. When one has disappeared from view at a certain point, we go there and wait for the next one to come, thus by stages tracking them home. The nests are marked by sticks bearing a large piece of white paper. At eight o'clock in the evening the work of destruction begins; this is simple. We make rolls of rags as large as one's finger and soak them in turpentine, as many rolls as there are nests to destroy. All those nests having but one opening are easily dealt with. The roll of rag is pushed far down the hole and a spadeful of soil placed firmly on. The wasps never survive if air is excluded. The queen wasps are bred in the latest-formed nests, nearly always near running water.—AVON.

Large Vegetables.—As the "housekeeping daughter" I had to cater for a large tableful for many years in days gone by, but (doubtless owing to woman's lack of logic) I fail to see why twenty persons at a table should be obliged to eat large vegetables while two may enjoy small ones.

Only think what an uninviting wreck a large Cauliflower becomes after the first one or two persons have been served! Is it not much nicer to have several small Cauliflowers, which can be cut neatly and served fairly for all, not to mention that small Cauliflowers, Cabbages and Onions are more certain to be thoroughly cooked than large ones? And why need a large household be supposed to prefer large Beans? In my experience it is usually large, not small, vegetables that are apt to be "strong and stringy," or else too watery and flavourless, though I quite agree with Mr. G. Andrews that vegetables have made very rapid strides in quality during the last twenty years. Is not Mr. Beckett, too, a wee bit illogical ("A. La T." does not wish to waste



PRIMULA TOSAENSIS, A RARE SPECIES FROM JAPAN. THE FLOWERS ARE PALE MAGENTA.

layer of clean silver sand on the top, but that old practice is by others discontinued, on the ground that it is difficult to ascertain the condition of the soil below as regards moisture. The cuttings must be dibbled in securely, and a thorough watering through a fine rose will serve to settle everything in its place. When finished, the pots should be placed in a close propagating-case or covered with a bell-glass in gentle heat, where they will soon root.—H. P.

Wasps and Fruit.—Your correspondent E. Robinson, page 230, issue May 15, in writing on this subject, speaks of the "little harm wasps do us." Well, if he had seen one quarter of the harm wasps have done fruit-growers in certain country districts that I have, he would use the

vegetables; *au contraire*, as I read her protest), and does he not contradict himself in two sentences? First, he says "those with large families are thankful for improved (*i.e.*, larger) vegetables"; then adds "judges and best exhibitors never favour mere size, quality being the first and most important consideration," with which conclusion I most heartily agree.—ANNE AMATEUR.

Lewisia Howellii in Scotland.—Moraine treatment appears to suit the *Lewisias* very well in the South-West of Scotland, and *L. Howellii* is one of the best for the purpose. It has stood the winter in several gardens in this district when given moraine treatment. In some cases it has been covered with a sheet of glass, even when in the moraine, but, by way of experiment, I subjected a good plant of this *Lewisia*, which flowered last year, to a trial by leaving it without glass overhead. The result has been quite satisfactory, although the winter was one of a severe nature for plants which do not like much wet above. This plant is now looking very well indeed. It is on a moraine slightly sloping almost due south, and composed largely of whinstone chips and old lime rubbish. I saw a good plant of *L. leeana* in a South of Scotland garden the other day; it had been covered by glass, but I think it stands wet even better than *L. Howellii*.—S. ARNOTT, *Maxwelltown, Dumfries*.

Hardy Ferns for Shady Green-houses.—One may often see, particularly in towns, small green-houses so situated that they scarcely, if ever, get a ray of sunshine. Frequently, too, there is no provision for heating them, so that any plants it is attempted to grow therein must be able to withstand a certain amount of frost. For such structures the choice of plants that can be grown there is very limited, and must be practically restricted to foliage subjects. In such places there is nothing that will give a greater amount of pleasure (if as much) as a collection of hardy Ferns, of which small specimens established in 3-inch or 4-inch pots can be obtained at a cheap rate. If purchased at once, they will in most cases be ready to shift into larger pots, say, 4½ inches to 5 inches in diameter. A suitable compost for most of them may be made up of two-thirds loam to one-third leaf-mould or peat, and a good sprinkling of silver sand. When the roots have taken possession of the new soil and the plants are growing freely, they may be watered abundantly; but while much less water will be needed in the winter, at no time must they be allowed to get very dry. The list of species and varieties suitable for such a purpose is a long one, but beginners may well purchase a mixed collection and make additions thereto according to fancy.—H. P.

FORTHCOMING EVENT.

June 8.—Royal Horticultural Society's Fortnightly Exhibition, Vincent Square, Westminster, 1 to 6 p.m.

THE TULIP EXHIBITION AND CONFERENCE.

BY THE REV. JOSEPH JACOB.

THEIR HISTORY AND OBJECTS.

THE genesis of the large assemblage of Tulips gathered together at Vincent Square on May 14 was a suggestion proffered to the Royal Horticultural Society that they should undertake the preparation of a list of Tulip synonyms. The seed fell into good ground, and trials at Wisley, the publication with accurate descriptions of a list of all the best varieties, a new garden classification, and a selection of some of the best varieties in the several groups, all became part of the work which ultimately

selecting the best blooms and then cutting, labelling and, finally, packing them was successfully accomplished. Thanks to these and the representative flowers contributed by the exhibiting firms, a decidedly comprehensive collection was formed. How many varieties of one kind or another were in the Hall it is quite impossible to say. They were like the grains of sand on the seashore in multitude. In only one of the largest of the colour groups among the Darwins, that labelled scarlet vermilion, of which *Isis* is taken as the type, I counted no fewer than sixty to seventy varieties.

The exhibition may be described as being divided into two parts, which might be variously described. Mrs. Jarley, on the lines of her celebrated division of China (and, I presume, any other country), would have said into the show "proper" and the show "improper." Not a



PART OF THE BEAUTIFULLY ARRANGED GROUP OF TULIPS SHOWN BY MESSRS. DOBBIE AT THE TULIP EXHIBITION ON THE 14TH INST. (See page 269.)

the Royal Horticultural Society set themselves to do.

The Dutch Bulb Growers' Association was asked to co-operate, which they willingly did. Eight members came over last year and worked with their English comrades at Wisley. The war has prevented them taking the same active part in the deliberations this spring, but all that is done here is to be submitted to Haarlem. One very great loss is that of the index collection of Darwin and Dutch Tulips that in normal times would have been sent over from Holland for this exhibition. It is a disaster of the first magnitude, as it has been found impossible to get together any adequate substitute. The only thing possible was to use the collections at Wisley Gardens as far as they went and bring cut blooms from there. Thanks to Mr. Titchmarsh, the trials officer, and his assistants, this was done. The work of

very bad one, if I may put a little meaning into her parrot jargon, and say that the "improper" part of the show was the encircling band of beautiful trade exhibits, which in one sense were foreign to the business propositions before the committee, viz., the final placing of the individual varieties in their proper classes, the final selection of a few of the best in each division, and a general revision of the descriptions of the blooms. The labour involved was very great. The chairman did tell us how many miles he had walked in the preliminary operations of grading and placing the flowers on the staging on the day before the committee were to set to work. At the appointed time, nine, on the Thursday morning, the final revision began, and, before it was over, the floor of the Hall must have been a hundredth part of an inch thinner. Oh, the tramping and the looking! Tired feet and eyes! Just once in a



TULIP BOWMONT OR CORDELIA RECTIFIED. A BEAUTIFUL VARIETY SHOWN BY MESSRS. R. H. BATE. (See text.)

moment of leisure I did wonder if "D.V." or its equivalent "L.C." was on the agenda. "Parson gave out a meeting on Thursday at twelve, D.V. What does D.V. mean?" The friend said promptly, "Dinner in the vestry." Lunch in the Council Chamber was there all right, and very welcome it was. Whatever value attaches to our work in future years, those who took part in it had a strenuous time, both at Vincent Square and at Wisley. They will, I feel sure, approve of my publicly acknowledging the way in which the Royal Horticultural Society looked after the inner man. The meal-times were such pleasant oases of rest in the midst of our labours.

But to go back to the twofold division of exhibits. Another very proper one would be that into "useful" and "ornamental." On the centre staging of the great Hall were rows of Tulips divided up into Darwins, Cottage, Breeders and Broken (striped), and these, again, subdivided into colour divisions. It was upon this sorting out that the main attack of the committee was concentrated. As one of the units who took part in it, I can vouch it was a "teaser," and, like Aaron's rod, it seemed to swallow up all our other activities. But it was at last brought to a successful conclusion, so that visitors to the show were enabled to see for themselves how far our sense of colour had led us to a satisfactory end. There were a great many during the after-

amateur and trade exhibits. They made a beautiful setting round the more utilitarian colour groups on the central staging, where usefulness and not arrangement was the primary consideration. They made the ornamental part, and right well they did it. Let me enumerate each one and add a few words of comment or description.

First must come the gold medal group of Messrs. Barr and Sons, a most extensive and important-looking collection that filled the whole of the west end of the exhibition hall. Numbers, diversity and good culture, aided by good arrangement, gained for it its award. Messrs. Barr seem likely to do the "hat trick" for gold medals this season. Two in one week at Vincent Square, and Chelsea following on the next Tuesday! Before these lines are in print we will know the result.

Canon Fowler, who was awarded a standard silver cup, put up some superbly grown blooms—large, spotless and beautifully fresh. There were none better, if there were any as good. Here there was no attempt at artistic arrangement. The varieties were placed in tiered lines with plenty of space between them, and only about five or six blooms in a vase. I certainly thought that one got a better idea of each individual kind in this style of grouping than in any other.

Novelty was the keynote of Mr. Walter T. Ware's most interesting exhibit, for which the

noon of the Friday, including Miss Willmott, Mr. J. T. Bennett-Poë, Mr. H. J. Elwes, Mr. Hugh Dickson from Belfast, and the famous veteran, Mr. J. G. Baker, whose interest in the Inglescombe garden novelties, no less than in a certain box of species from Colesborne, opened and displayed before a few choice spirits after Mr. A. D. Hall's lecture, seemed to reveal the old hunter, roused by the distant sound of hound and horn. The Tulip already appeals to a wide circle of friends. I think the display at Vincent Square on the 13th and 14th inst. will do something to extend it. Tulips, Tulips everywhere, all Tulips. Not another flower present. His Magnificence for once dined, as it were, at a table apart, as Queen Rosa did a few weeks past. Any sense of monotony was amply relieved by the circle of

unusual award of a Lindley silver medal was given. I believe I am right in saying that it denotes meritorious cultivation and patient work on behalf of the recipient. With two or three exceptions the whole of the varieties were new. Nearly every one merited a detailed description, but I cannot, however, give that in these notes, as they are intended to be more an account of the exhibition as a whole and the special objects for which it was held. The illustration on page 269 shows two of the best and most refined and beautiful. A huge, overlarge yellow Empire gained an award on May 11, while Burgundy, which was to my mind the most distinct of all that were before the committee, was passed over. It is a long flower of the Cottage class, somewhat pointed and of a rich, bright-looking purple, quite a self. Lena, which accompanies it, is a charming rosy mauve with edges of a paler tone, not unlike Salaman, which, when at the top of its form, is to me almost the most exquisite of all Tulips. The raiser whispered in my ear in a way that I feel I may pass on, that this was one of his very special favourites. Of all in this group, the two in the illustration were the ones that appealed most to me. As in the case of the exhibit of Canon Fowler, there was plenty of space between the vases, and the number in each was limited. One saw them very well in consequence.

Messrs. Hogg and Robertson had an unmistakably fine collection. The individual blooms were clean and well grown, and I believe some good judges expected it to receive a higher award than a silver-gilt Flora medal. It had, however, a weak end. As a friend remarked, it looked like a runner who had to fall out just before the tape was reached. It was a great pity.

The large collection of Messrs. R. H. Bath I take to be in a sense prophetic, inasmuch as broken Darwins or Rembrandts were specially prominent. The time may come when these parti-coloured blooms will once again be the fashion. It looks as if this firm intends to be "there" when it does. Cordelia rectified is an excellent type of a good Rembrandt. I regret more than I can express in words the way we are going to get into of naming these "breaks." This was labelled Bowmont. Will every other stock of Cordelia rectified receive the same name? All well and good if it were so. But suppose, as is infinitely more likely, every person in whose garden Cordelia breaks gives that break a name of his own, there will be as many synonyms as there have been namers, except, once in a blue moon, the same one is hit upon by two or more people. To me the practice is against common sense and the plain teaching of history. But then, people are not always sensible, and history is not always listened to.

I associate the name of Wallace with various things—Lilies, Coronation Cups, Japanese Iris, Colchester, &c. Had the groups in the Hall been unnamed, I would have known which belonged to this firm, from its arrangement being a "colour scheme." It contained many valuable suggestions in the very pretty gradation of shade and tone as one colour ran into another, brown, pink, mauve, yellow and crimson. The flowers, however, were too young to do themselves justice, and the whole of the surface was too flat for my liking.

A second Lindley medal went to Mr. A. D. Hall for a small collection of the English florist type. This represents the last word in Tulips, according to the Royal National Tulip Society;

but the flowers need care and protection when they are in bloom, otherwise their dainty colouring is very apt to be spoilt by the weather. Mr. Hall is known all the world over as a great soil expert. His Tulips reap the benefit of his vast knowledge.

Messrs. Waterer, Sons and Crisp had an extensive display, for which they gained a silver-gilt Banksian medal. It was too much of a medley to be really effective. The outline of the whole was decidedly novel—two flat, broad ends and a raised tiered portion in the centre, like a camel's back. I am very glad to see this new-born energy for Tulips on the part of the old firm, and from the keen way in which I saw Mr. B. Crisp examining everything at the exhibition, I fancy it is his advent that has brought it about. I wish him every success.

Mr. Christopher Bourne's collection was good, and had not the standard of the day been a very high one, as befitted an all-Tulip exhibition, it would doubtless have been awarded something higher than a silver medal. The group had no prominent outstanding feature, although the flowers were clean and fresh, and there was a considerable sprinkling of choice varieties.

As far as attractiveness went, nothing equalled the beautiful display of Messrs. Dobbie and Co. I have seen Sweet Peas, Roses, Carnations, Daffodils, Dahlias and Orchids figuring in a one-flower group, but none of them has ever made a more pleasing show than the Tulips did upon this occasion. The illustration on page 267 will help readers to imagine what it was like. The black velvet background and the white covering of the staging was a bold but highly successful venture. The Palms were introduced just where they were wanted. The variety of water-holders allowed the blooms to be displayed in several ways, and the artistic feeling of the arranger enabled the different factors to be combined in an exceptionally delightful whole. The number of varieties was not large compared, say, to those of their neighbours, Messrs. Hogg and Robertson, but the blooms were fresh and clean, and had that peculiar, tender tone which slight shading under glass invariably imparts. Whoever thought this all out, I congratulate most heartily.

SOME CURIOUS INSECTIVOROUS PLANTS.

THE SARRACENIAS.

THESE are interesting Pitcher Plants which are well worth consideration by those who possess a greenhouse where a minimum temperature of 45° Fahr. can be maintained during the winter months. Some of them, especially the handsome *S. purpurea*, are often grown outside in a sheltered bog or a damp spot in the rock garden. Others, no doubt, would also thrive more or less in similar positions, but where it is practised care must be taken to prevent the roots becoming exposed through the summer months. A layer of living sphagnum moss should be placed around the base of each plant, as moisture is an important factor in the successful cultivation of Sarracenias. Although much alike in shape and habit, there is considerable variety among the species, while the hybridist has further enriched the genus with several striking plants.

A few of the best would include *Sarracenia flava*, *S. rubra*, *S. Drummondii*, *S. Chelsonii*, *S. Courtii*, *S. tolliana*, *S. wrigleyana*, *S. psittacina*, *S. Stevensii* and *S. exoniensis*. To grow really fine specimens a greenhouse is necessary. A porch or corridor at the south end of a range of houses would be an ideal spot for them, providing they were tolerably near the roof glass. For the last few months the plants have been resting, and the soil has been kept just moist.

Repotting.—When growth commences, the repotting must be taken in hand, an operation which should be performed annually. Fairly deep pans prove the most suitable receptacles, and they ought to be provided with plenty of drainage, for although Sarracenias need a large quantity of water, nothing approaching stagnation can be permitted. The rooting medium consists of fibrous peat and live sphagnum moss in equal parts, to which may be added a liberal sprinkling of rough sand or finely crushed potsherds. The plants must be potted firmly, and the crowns and rhizomes should be on a level with the surface of the soil, and not buried in any way. When the repotting is completed, give a thorough watering and keep them moist until growth becomes active. At this stage an abundance of water is necessary, and to attain this end each pan may be placed in a saucerful of water. Full sunlight must be given, and a light spraying overhead three or four times a day will be most beneficial.

It has been said that Sarracenias like their roots in water and their leaves in full sunshine, and there is a lot of truth in that remark. With the approach of autumn the moisture, both at the root and in the atmosphere, can be diminished, but the plants must never become really dry.

In addition to the Sarracenias, the following insectivorous subjects could be grown in the same structure: *Dionæa muscipula* (Venus' Fly-trap), *Darlingtonia californica*, the rare *Heliophora nutans*, *Cephalotus follicularis*, *Pinguicula caudata*, and several of the pretty Sundews, such as *Drosera dichotoma*, *D. capensis* and *D. binata*. W. B.

LARGE-FLOWERED ROSES FOR ARCHES & PILLARS.

ALTHOUGH I have not a word to say in depreciation of the so-called "Rambler Roses," I find in moving among the Rose-loving public that there is a desire for more of the large-flowered varieties to clothe arches and pillars.

One may have these large-flowered Roses against walls, but these are frequently very limited in extent and often already covered with *Wistaria*, *Clematis* and other climbers.

Fortunately, there is a great variety of Roses available that yield large blooms almost continually throughout the summer. Although they do not furnish the gorgeous and lavish display of bloom at one given time as the "ramblers" do, yet in a great measure they are more useful, giving us beautiful Roses for our vases and table decorations. I would put in a strong plea for the pillar Roses, and would like to see more of them in gardens. In many positions they are more effective than standards, as they are clothed with bloom from base to summit and have no ugly stem to



TULIPS LENA LIGHT, AND BURGUNDY, TWO INTERESTING FLOWERS AT THE LONDON SHOW. (See previous page.)

display. Again, one may have quite a number of really fine exhibition Roses so growing, because the natural vigour of the varieties seems to call for some such mode of training. I allude more especially to Roses such as Avoca, Hugh Dickson, J. B. Clark and Mrs. Stewart Clark, varieties that are impossible in beds with ordinary bush Roses, as they speedily usurp more than their share of space.

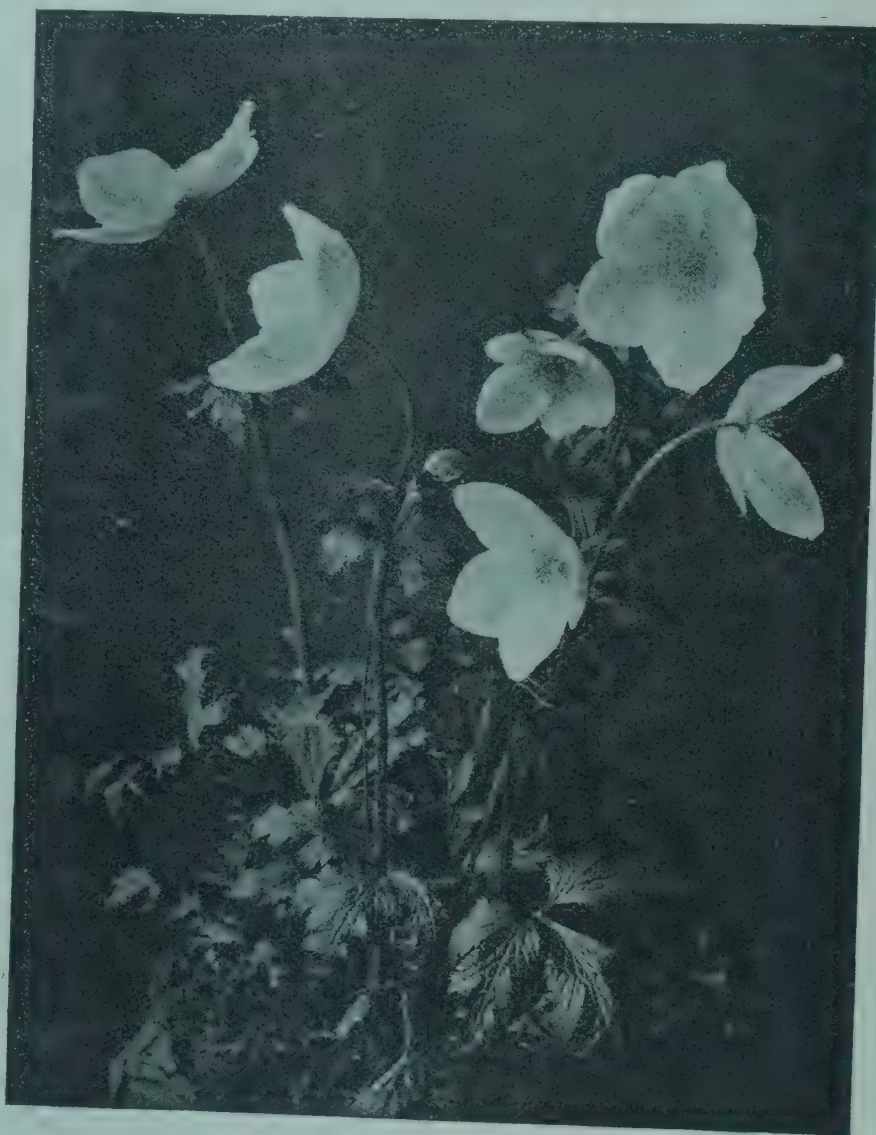
Before giving the list of varieties which I can recommend for arches and pillars, I would like to say that mistakes are often made in the first pruning of these Roses. As a rule, it is desirable to prune back the ordinary climbing Rose to 2 feet, in order that it may well furnish itself with growths from the base; but there are a few kinds, such as Climbing Mrs. W. J. Grant, which resent this treatment, and if pruned will often refuse to run afterwards. I have marked with an asterisk such varieties which, in my opinion, should be retained almost full length the first year and have a very moderate pruning for the next two or three years; then, when the plants send up the fine, strong growths which they will do, the old wood may be gradually cut away. I have arranged the varieties into two groups, those first named being more fitted for tall pillars or arches; the second group would be best as pillars, or used to furnish the lower part of an arch which a Rambler Rose has left almost bare. In both cases good deep holes should be prepared. A depth of 3 feet and the same in width is none too much for future needs, and if some basic slag, say, about half a pound, is worked in the lower soil with the manure, and a handful of bone-flour scattered on the soil above the roots and slightly covered, there will be good healthy growth from the first.

Varieties for Arches or Tall Pillars.—Climbing Captain Christy, Climbing Caroline Tesout, Climbing Mrs. W. J. Grant, *Climbing Lady Ash-town, *Climbing Frau Karl Druschki, Climbing Kaiserin Augusta Victoria, Dr. Van Fleet, Francois Crousse, Gerbe Rose, Mme. Bérard, Morletti, Johannisfeuer, *Lady Waterlow, Mme. Alfred Carrière, *Mme. Hector Leuillot, Miss Helyett, M. Desir, Neervelt, Noella Nabonnand, Reine Marie Henriette, Rêve d'Or, Reine Olga de Wurtemberg, Conrad F. Meyer, Nova Zembla, Souvenir de Mme. Joseph Metral and Souvenir de L. Viennet.

Varieties for Moderate Pillars.—*Gustave Regis, Grüss an Teplitz, *Lina Schmidt-Michel, *Florence H. Veitch, *Mrs. Stewart Clark, *Mrs. Cornwallis West, Gloire des Rosomanes, *Climbing Richmond, *Climbing Liberty, *Hugh Dickson, *J. B. Clark, Zephyrine Drouhin, *Juliet, *Climbing White Cochet, *Ards Rambler, *Ards Rover, *Avoca, *Effective, *Johanna Sebus, Longworth Rambler, *Billiard et Barre, Sarah Bernhardt, Bardou Job, *George Dickson, *King George V. and *Coronation (Hybrid Perpetual). DANECROFT.

SPRING FLOWERS AT STRATTON PARK.

THERE are few greater joys on earth to the true lover of plant life than to visit a properly planned and well-tended garden during a sunny day of May. At that time Nature has settled into her kindest mood, and the fresh and ever-varying tints of green provided by the trees that should form a boundary to every good English garden create a wonderful and highly appropriate setting for the more vivid colours of the less stately, but none the less beautiful,



ANEMONE RUPICOLA SHOWN BY MESSRS. BEES, LIMITED, AT THE CHELSEA SHOW LAST WEEK. (See page 273.)

flowers. Thus it was with considerable pleasure we visited, through the kindness of Lord and Lady Northbrook, their charming gardens at Stratton Park at a time when the gorgeous May-flowering Tulips were providing a wonderful riot of colour, a riot subdued and kept in bounds by the soft blue of Aubrietia or Forget-me-not.

The gardens at West Stratton owe not a little of their beauty and fascination to the energy and enthusiasm of Lady Northbrook. At the east end of the house, which nestles in a sort of hollow at the foot of a rather steep hillside, is a delightful formal garden enclosed with closely clipped Yew hedges and intersected by pathways of beautifully weathered York paving. At each corner where the pathways meet are some very

finely sculptured Italian stone vases, and in a prominent central position we find a beautiful old Italian well-head.

This garden was planned and designed by Lady Northbrook some eight or nine years ago, and it speaks volumes for the good taste displayed when we say that in appearance it might have been there for half a century. All traces of newness, if ever there were any, have departed, and the garden is now a restful retreat in which one may sit and contemplate the beautiful colours of flowers and the wonderful forms of the plants that bear them. All the central flower-beds in this garden have a well-proportioned border of turf, and just now are filled with mixed

May-flowering Tulips, principally of red and pink shades, carpeted with Forget-me-not Royal Blue. In the interstices of the flagged pathways a number of plants find a happy home. Campanula muralis or portenschlagiana, Viola gracilis, Red Valerian (near the well-head), Maiden Pinks and Aubrietias are found thriving amazingly, yet the mistake of too thick planting that one often finds had been wisely and consistently avoided. We were pleased to find that seeds of Leptosiphon hybridus had been sown between the flagstones. It is a gem among annuals, and loves the sun.

On the north side of the east end garden, but separated from it by a broad pathway and belts of turf, is a dry retaining wall of some 7 feet or 8 feet high, with a border about three feet wide nestling at the foot. At the top of the wall Rose Dorothy Perkins has been planted and trained along on rustic poles to form a sort of informal hedge, the beauty of which in July can be easily imagined. The wall itself, which is made of sandstone, was constructed with a good batter and large interstices, so that it now provides a suitable home for a brilliant array of plants—Aubrietias, Alys-sum saxatile, Erinus alpinus, dwarf Lavender and Rosemary, Red Valerian, Campanula muralis or portenschlagiana, Mulleins (near the top), Nepeta Mussinii, Iberis sempervirens, Woolly Thyme and Cheiranthus Allionii were a few of many kinds that had transformed this wall into

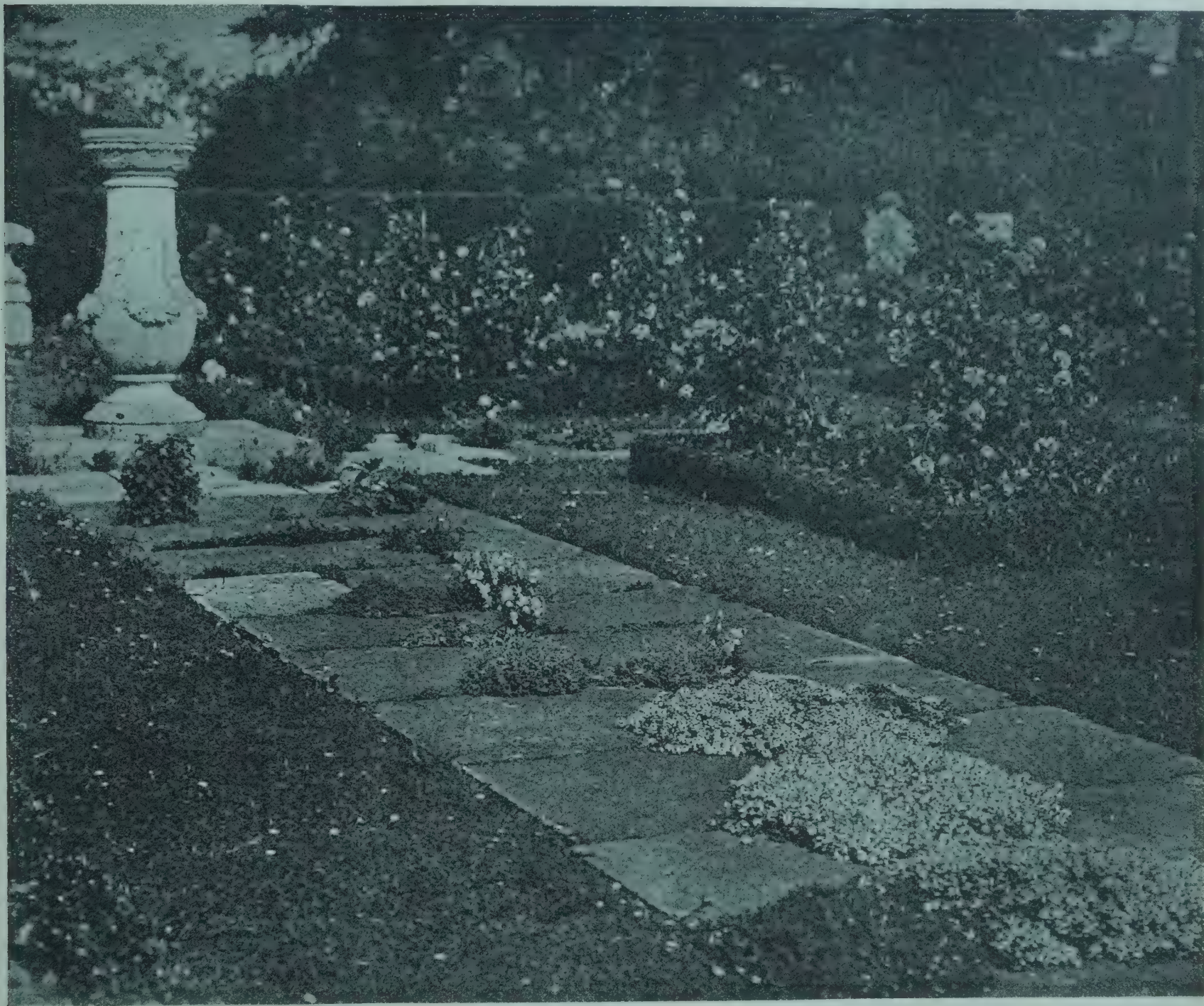
an object of great beauty and interest. In the border at the foot of the wall, which faces due south, we were rather surprised to find Hart's-tongue Ferns flourishing in company with Tulips, Forget-me-nots, Polyanthes and other hardy plants. Evidently these Ferns do not mind exposure to full sun so much as is generally supposed. At the west end of this wall some new and well-designed stone steps that lead to the pleasure grounds form one side of a curious little nook, the north and west banks of which are retained with enormous pudding-stones. Apparently nothing is known of the history of these, but some of them must weigh several tons.

Leaving the more formal parts of the garden, and mounting the stone steps already referred to,

one finds a very charming effect on either side of the steps leading from the drawing-room door. Some years ago Lady Northbrook conceived the happy idea of planting the purple-leaved Plum (*Prunus Pissardii*) in the borders there, and at the present time the ground beneath is a veritable cloud of deep sky blue, created by lusty Forget-me-nots. Later on, when the blue is finished, pink *Begonia semperflorens* will take up the colour scheme. And here let it be said that one of the greatest charms of the gardens at Stratton Park

Erigerons, Campanulas, *Verbena venosa*, Veronicas and *Nepeta Mussinii* all play important parts later on. Near by is the Rose garden, the beds of which are mainly filled with those grand varieties *Grüss an Teplitz* and *Caroline Testout*. Round about the Roses there are long beds edged with full-grown Lavender, and planted with blue Delphiniums and weeping standards of Rose Dorothy Perkins. Turning a cleverly concealed corner, one is brought face to face with a winding vista of blue and purple. This is skilfully formed

of natural depression, is a charming little rock garden, filled with a good collection of rare and beautiful plants that for the most part seem perfectly at home. At the summit of the rocks such shrubs as *Cytisus præcox*, purple-leaved Japanese Maples, Azaleas and some particularly fine specimens of *Euphorbia Wulfenii* have been planted to form a screen, and in the rocks below one finds *Ramondias*, *Gentianas verna* and *acaulis*, *Phloxes Vivid* and *amœna*, such *Saxifrages* as *ligulata* and *cochlearis*, *Erinus alpinus* and many



CAMPANULA PORTENSCHLAGIANA, VIOLA GRACILIS AND OTHER DWARF PLANTS GROWING BETWEEN YORK PAVING AT STRATTON PARK.

is the surprises that are always in store for the visitor. At every turn one comes to some charming and totally unexpected feature. Unusual colour combinations or bold examples of grouping have been adopted by Lady Northbrook with considerable forethought and skill. Thus, near to the purple-leaved Plums we find Crimson Rambler Roses trained over rustic poles.

Passing along the pathway in a north-westerly direction, and through bold arches of clipped Yews, we come to the blue and mauve garden, in which

by some fine young trees of the purple-leaved Plum, carpeted with blue Forget-me-nots. The effect is most soothing, particularly on a hot, sunny day. About halfway along this pathway, and on the right, is a short pergola leading to a garden seat; this provides a support for ornamental Vines such as *Vitis Coignetiae* and *V. Thunbergii*. Along each side of the pergola the beds are planted with Madonna and other Lilies, so that the effect later on should be very charming. At the end of the vista, and nestling in a sort

other gems too numerous to mention in detail. In close association with the rock garden, and yet effectively screened from it, is the Italian pergola, a lofty structure that has for its object a thatched summer-house. This pergola forms a support now for *Ceanothuses Gloire de Versailles* and *veitchianus*, while at the opposite end to the summer-house, and on a stone dais, is the beautiful and perfectly weathered old Italian well-head. Advancing still further north, one comes to the wild garden, which is the latest result of Lady

Northbrook's activity and interest. What used to be at one time a tangle of undergrowth to magnificent Beeches, Sequoias and other trees has been cleared away, and the open spaces thus formed planted with many kinds of flowers that are suitable for wild or semi-wild spots. Snake's-head Fritillaries, purple and white Honesty, Funkias, Anemone blanda, Polygonums, Mulleins, Cowslips, Bluebells, Gentiana asclepiadea and Yellow Loosestrife in bold masses are a few of the many. One pleasing effect, in a more open

NEW PLANTS AT THE CHELSEA SHOW.

FIRST CLASS CERTIFICATES.

Odontioda Colmaniae (Odontioda Bradshawiae × Odontoglossum hybrid).—A small three year old plant of this gloriously coloured hybrid was shown, a four-flowered raceme representing the plant. It is a lovely thing, done in scarlet and gold, the body colour, scarlet, coming from O.

of fine proportions. From Messrs. Stuart Low and Co., Enfield.

Laelio-Cattleya Transylvania Leonora Enid.—Sepals and petals ruby crimson, with velvet crimson lip. A very beautiful novelty. From J. Gurney Fowler, Esq., Tunbridge Wells.

AWARDS OF MERIT.

Odontoglossum Aglaon Orchidhurst Variety.—The plant carried a bold spike with thirteen fully expanded flowers. The latter are unusually



A CORNER OF THE ITALIAN PERGOLA AT STRATTON PARK, WITH OLD WELL-HEAD ON THE LEFT.

spot than most, was created by American or coloured Cowslips and the white-flowered native Saxifraga granulata. Both were growing in the grass, and seedlings were present in their hundreds. Already this wild garden, bounded on the north and east sides by fine avenues of Beeches and Limes, trees that seem to thrive in the chalk that forms the bulk of the soil on which these interesting gardens are situated, is full of charm and beauty.

Bradshawiae. This is reticulated with gold, which colour also characterises the tips of the petals. From Sir Jeremiah Colman, Bart., Gatton Park, Reigate.

Laelio-Cattleya Sybil Low's Variety (L.-C. dominiana × C. Mendelii).—The sepals and petals of this handsome hybrid are of pinky tone, with deeper-coloured veins, the front lobe of the lip rich crimson, with side blotches of bright yellow. A strikingly beautiful form

large and acutely pointed. The white ground is heavily blotched with crimson. It is very handsome and distinct. From Messrs. Armstrong and Brown, Tunbridge Wells.

Odontoglossum Princess Mary.—This is a large blush-white flower blotched with claret-red. From J. Gurney Fowler, Esq., Tunbridge Wells.

Disa Blackii (D. grandiflora × D. Luna).—The finest hybrid Disa yet raised, and quite

intermediate between the parents. The dorsal sepal is carmine, the lower ones pink. The lip is crimson.

Cattleya Tityus Rex (C. Enid × C. Octave Doin).—A charming hybrid with rosy red sepals and petals and ruby-coloured lip, which are in striking contrast to the golden-blotched sides.

Odontioda lambeauiana Nellie (Odontioda Cochlioda noetzliana × Odontoglossum lambeauianum).—This is of reddish scarlet colour, with rich orange lip distinctly margined with violet. A shapely flower of remarkable substance with well-imbricated petals. These three novelties were from Messrs. Flory and Black, Slough.

Lælio-Cattleya Helius.—The sepals and petals are of apricot yellow tone, the front lobe of the lip coloured a rich magenta. From Messrs. McBean, Cooksbridge.

Lælio-Cattleya Gold Star (L.-C. Ariel × C. Mendelii).—A moderately large flower, having cream yellow bordered sepals and petals, the lower half of the front lobe of the lip crimson, with rich golden yellow throat. Shown by Messrs. Sander and Sons, St. Albans.

Odontoglossum crispum Queen of the Belgians. The plant bore a solitary flower, which, heavily blotched with chocolate and crimson, is veined and margined white. It is a strikingly beautiful variety. From Messrs. Charlesworth and Co., Hayward's Heath.

Miltonia hyeana F. M. Ogilvie, from F. M. Ogilvie, Esq., also received recognition, but we could not locate the plant.

Tulip Comedy (Darwin).—Rosy scarlet, white base.

Tulip Bloodstone (Cottage).—Crimson maroon, with dark centre. A very striking variety.

Tulip Satin Gown (Cottage).—Of silky rose hue.

Tulip Inglescombe White (Cottage).—A very pure and good flower. These four were shown by Messrs. Walter T. Ware and Co., Bath.

Rose Paul's Scarlet Climber.—The most brilliant thing in Roses we have yet seen, in a plant of perfect habit. Examples of it forming a group were 7 feet or 8 feet high, the growths wreathed in flowers of the richest scarlet and about three inches across. Quite self-coloured to the base, it is said the variety retains its colour for a long time. We know of nothing like it in brilliant colouring or profuse flowering. From Messrs. W. Paul and Son, Waltham Cross.

Rose Dewdrop.—A group of this pretty Polyantha kind was shown. The flowers are clear rose colour, good in form and abundantly produced. The examples shown were less than two feet high. From Messrs. Hobbies and Co., Dereham.

Anemone rupicola.—A new Chinese species, and without doubt the finest new hardy plant at the show. The flowers are of great substance, pure white, with outer sepals coloured rosy lilac. As large as the white Japanese kind of September, the flowers are much superior looking, and chaste withal. About a foot high, lifted, we were informed, from the open, the new-comer presents a sturdiness of habit and vigour, as well as profuse flowering, which will be welcome. It is both a novelty and an acquisition. Admirably shown by Bees, Limited, Liverpool. See illustration on page 270.

Pyrus Malus Sargentii.—A white-flowered form as beautiful as it is distinct. From Messrs. Paul and Son, Cheshunt.

Lewisia columbiana.—Several of the Lewisias, while possessing distinctive habits of growth, approximate to each other in colour. This is one of them, though a very charming plant, notwithstanding. The fleshy, nearly spatulate leaves are 3 inches long and plain, the flower-buds buff-coloured, the expanded flowers having a like coloured margin and a centre of rosy scarlet. Six inches or eight inches long, the much-branched inflorescence is crowded with bud and blossom. From Miss Willmott, Warley Place.

Senecio multibracteatus Clare Lodge Variety. A perennial kind of bushy habit and about two and a-half feet high. The flower-heads are rich rosy colour, and approximate to a single Pyrethrum in form. Shown by Mr. R. C. Notcutt, Woodbridge, on behalf of Mr. E. Novell.

Carnation Bookham Clove.—A handsome, glossy crimson maroon self of excellent form with slightly incurving petals. Its fragrance and fine constitution are among its many attributes.

Carnation Daisy Walker.—A white-ground fancy with scarlet markings. The ground colour is singularly pure and good, the markings well defined. These two were shown by Mr. J. Douglas, Great Bookham.

Viola septentrionalis.—A very pretty white-flowered species of large size, much lined with violet colour at the base of the flowers. The rather frail stems are 6 inches or 8 inches long. Shown by Miss Leonard, St. Ippolyts, Hitchin.

THE YELLOW ROCK GARDEN VIOLAS.

UNTIL a few seasons ago the number of yellow Violas suited for rock gardens was very limited, and the few forms in cultivation were notable either for their brilliance or their garden value. Among the best of them were the yellow form of the alpine Pansy (*Viola calcarata*), known as *flava*; the scarce, large-blossomed *V. altaica*, which is difficult to secure; and the various forms of *V. lutea*, some of which are very effective in colour. Indeed, on the introduction of the deep violet *V. gracilis*, we largely utilised some of the best forms of *V. lutea* for contrasting with masses of *V. gracilis* on the rock garden slopes. A few other yellow mountain Violas were also occasionally met with, yet in such small quantities or giving such poor effects as to make them unworthy of notice for big plantings. With *V. lutea* and its forms, the one difficulty was summer drought; consequently for this reason they were not ideal subjects. Their colour, freedom and perfume pointed the way for new and better things.

I should like to note some of the more recent advances in yellow mountain Violas, with the idea of bringing more of their golden beauty into many gardens. Now, the chief requirements in a rock garden Viola are a strong resistive power to winter rigour, and this hardiness the newer Violas have in full; a neat-growing, floriferous habit (this is

most essential); and the *gracilis* powers of drought resistance, which are secured by the shoots from underground. Now, if to these are added beauty of colour and refined blossoms, the Violas are then a power to reckon with, for there are no rock garden subjects to surpass them for direct attractive beauty.

New yellows have perhaps been a little slower in coming than novelties in blues and purples, yet in almost all cases they have risen to notice and popularity at once. Good yellows of the *gracilis* type are indeed valuable for rock garden work. Masses of soft yellow or gold are a glory to behold, especially when contrasted with the wealth of blues, lavenders, purples, violets, &c., of the *Aubrietias* and the deeper-hued Violas. Some very useful forms are in commerce. Two of the most popular are *Marjorie* and *Golden Fleece*, both very tiny forms, very floriferous and dainty in formation. *Marjorie* is pale primrose, with a few tiny pencillings at the centre; and *Golden Fleece* is its counterpart in a deeper shade of yellow.

The variety *lutea* must come somewhere near these, but I have not seen it. *Golden Wave* is larger, with rich colour, very erect stems and a haunting fragrance. *V. gracilis aurea* is on the lines of *Golden Fleece*, a little more rounded in formation and practically rayless. It is indeed a most exquisite plant. A very pretty and fragrant variety is *Golden Drift*, which is now being grown on by a well-known firm preparatory to its being placed in commerce. It is neat, and of distinct beauty for drift planting. *Moonlight*, a beautiful soft yellow, should have a distinct appeal to flower-lovers. Here, again, the blossoms are rather small, very pleasing in appearance and very floriferous. *Golden Gondolier* differs from all of the foregoing. It has larger flowers and broader foliage, and combines with its lovely colouring and wonderful freedom a very neat, close habit. This we tried extensively previous to its departure into trade circles, and found it an invaluable subject for big drifts of colour.

The foregoing are all either in commerce or in rapid preparation for the same, yet there are a few others which will follow them and prove worthy of the fine race of plants to which they belong. A few especially notable forms may be briefly described. Very beautiful is *Princess Charming*, a small-flowered mine of delight, very floriferous, of a beautiful soft, clear colour, and very pleasing in shape. Much deeper than *Princess Charming* is that ideal of a golden rock Viola, *April Morn*. It is very like *V. gracilis aurea* in form and foliage, but is far deeper in colour, and may be looked upon as a coming plant. Next to it in value as a deep yellow is *Golden Glory*, a bright, pleasing flower of considerable merit and very attractive.

In a wonderful soft creamy yellow shade are two sterling novelties, *Fairy* and *Enchantement*. These are delightful forms, very distinct from any that have preceded them, and are doubtless destined for popular favour. In freedom, colour and form they are superb. Lastly, I note *Les Torrent*, a dainty, floriferous form that promises to make an invaluable drift plant. The freedom, the beauty of the soft and deeper shadings of yellow, and the character of the light winged flowers make this variety a charming subject fully worthy of inclusion in the ranks of the select rock garden Violas.

Clacton-on-Sea.

P. S. HAYWARD.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Cherries in Pots.—The trees from which all the fruits have been gathered must not be neglected. The roots will still be in need of plenty of water, and stimulants should be regularly afforded. The trees may now be removed outdoors and placed in a sunny position, plunging the pots up to the rims in ashes. If they are infested with red spider or aphid, a thorough washing with an insecticide should be given them, and, in order to keep the foliage clean, it must be well drenched with water from the garden hose every evening all through the summer.

Peaches and Nectarines in Pots.—When all the fruits have been gathered from the earliest trees, they may be given the same treatment as advised above for Cherries. Later trees which are carrying full crops of fruit must receive close attention to watering, as, should the roots be allowed to suffer, it is bound to reflect on the quality of the fruit. When the fruits commence their second swelling, the roots should receive a top-dressing of loam and manure. The final thinning of the fruits on the latest trees must be done as soon as they have stoned. This should be governed more or less according to the size and vigour of the trees, but in no case must they be overtaxed, or the fruits will be poor in quality.

Plants Under Glass.

Carnations.—The old plants which have been flowering all through the winter and spring will have to be removed to make room for the young stock. Good flowers may still be obtained from these old plants if they are plunged outdoors in a sheltered position and given plenty of water. When the earliest-struck plants are sufficiently well rooted, lose no time in potting them into their flowering pots.

Euphorbia jacquiniæflora.—Pot on rooted plants and keep them moving in a warm, moist house. Later on, cooler conditions may be given them. A batch of cuttings rooted now will make most useful plants for flowering in small pots. Much care is necessary in propagating Euphorbias at this time of the year. If the old plants have been growing in a high temperature, they should be placed in a cool house for a few days before taking off the cuttings.

Mignonette.—A sowing may be made now to obtain plants for flowering in the autumn. The seeds can be sown in the flowering pots and thinned out when the young plants are large enough. They should be grown in a cold frame.

Calanthes.—As growth advances, the plants may be watered more liberally, and this can be increased as the pots become filled with roots. Encourage a growing atmosphere by frequently damping between the plants, and syringe twice daily with rain-water.

Calceolarias.—Seed may be sown to produce an early batch of plants. Sow in pans in a light, finely sifted soil. The seed will germinate in a cold frame. Cover the pans with a sheet of glass and shade them till the seedlings are through the soil.

The Flower Garden.

Flowering Shrubs.—Forsythias, Ribes, Chimonanthus and various other early flowering shrubs which flower on the previous year's growth may be cut hard back after flowering.

Summer Bedding.—A start should be made with the planting of summer-flowering subjects as soon as possible after the spring kinds are over. Most of the beds will require a little manure, but this must be well seasoned. In the event of the soil being very dry, it should be well soaked with water from the garden hose. It is a good plan to requisition all hands from other departments of the garden to expedite the work of bedding out.

The Rock Garden.—When the spring flowers are over, there will be many blanks in the rock garden. In some cases these may be made good by planting or sowing annuals. Many annuals are quite suitable for planting on the rocks, and if a little fresh soil is added, these will thrive during the greater part of the summer.

The Hardy Fruit Garden.

Coverings on Fruit Trees.—Where glass copings are used to protect fruit trees, they should be so fixed that they may be easily removed when the danger of frost is passed, so that the trees can have the full benefit of rain. All coverings on fruit trees may safely be removed now.

Grafted Trees.—The clay must be moved from the grafts and the ties loosened when it can be seen that the scions are growing freely. The graft should again be supported with a fresh piece of tying material. All new growths below the graft must be cut off.

The Kitchen Garden.

Late Peas.—During the next fortnight all late Peas ought to be planted. The ground for this crop should be well prepared by deep cultivation and thorough manuring. Sow thinly in shallow trenches. Autocrat, Rearguard and The Gladstone are all reliable varieties to grow for late work.

Cauliflowers.—The earliest plants are now growing freely. In the event of a continued spell of dry weather, plenty of water must be afforded them. Liquid manure from the farmyard will put vigour into the plants. Use the hoe freely between them, and draw the soil around the stems for support in the event of strong winds.

French Beans.—Seeds must be sown at regular intervals to keep up a supply of this excellent vegetable. A deeply tilled soil with plenty of manure is necessary for this crop. Canadian Wonder and The Belfast are both reliable varieties to grow.

Radishes.—Make frequent sowings of Radishes in a shady position and give abundance of water.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Digging.—There will be a few plots which have only just become vacant through spring vegetables having become exhausted, such as Spinach, Broccoli and other crops. As the ground is cleared it can be dug in preparation for planting out and sowing other crops in their rotation.

Onions.—To keep the Onion fly in check, the young plants should be occasionally dusted with soot to stimulate their growth over the present critical period, when they are likely to be attacked. Afterwards there is not so much danger of them being injured.

Spinach.—If a succession is to be kept up during the warm summer months, Spinach will be found less liable to run so quickly to seed if sown in a shady border or on the north side of a wall. To further help in the production of good Spinach, the ground should be deeply dug and well manured. If the weather is dry, a good soaking with water will greatly assist the plants.

Asparagus.—Weeds are usually most troublesome on Asparagus-beds, and should be pulled by hand to prevent injury to the growing crowns. Unless the beds are exceptionally vigorous and well established, cutting ought not to continue too long, or there is a danger of weakening the plants. If liquid manure is available and the weather at all moist, now is a good time to apply it, when the plants are in full growth.

Potatoes.—The hoe must be used between the rows to keep down weeds, and earthing-up should be carried out as the growths appear above the soil.

Plants Under Glass.

Fuchsias.—Young plants must have their tops pinched out occasionally to encourage bushy growth and the desired shape. For ordinary purposes the pyramid shape seems the most natural, and displays the blooms to advantage. Fuchsias succeed best in a shaded glass house, but do not like too dense a covering, which causes the growth to become weak and not to produce many flowers. Feeding should be done fairly frequently, remembering that a change of diet will induce better growth than by adhering to one form of food.

Chrysanthemums.—The final potting must now be proceeded with. Both bush and single-stemmed plants should be completed within the next fortnight. When potting, do not fill the pots as in potting, most other plants, but leave sufficient space to allow several liberal top-dressings to be applied. As the plants are potted, they ought to be stood closely together until such time as they can have attention paid to the final staking and tying to the wires. If it is noticed that some of the plants are likely to starve a little before they can be potted, some weak soot-water can be given to keep the foliage a healthy colour. Let the potting compost be fairly rough and contain plenty of porous materials, especially if the district is a wet one.

Zonal Pelargoniums for winter flowering should soon be moved into their final pots, so that they may become well established before August and September, when they are usually housed. To get the best results, with freedom of flowering, they must not be overpotted, otherwise there is a tendency to make too much foliage at the expense of flowers.

Cœlogyne cristata.—Most gardens contain a few plants of this Orchid. The present is a good time for top-dressing them, just as the young roots are pushing out. Some of the oldest bulbs should be removed to make room for the young growths. As this Orchid resents disturbance at the roots, it is not advisable to repot often, so long as it can be kept in a healthy growing condition by top-dressing.

The Flower Garden.

Bedding Out.—Most plants can now be safely put in their flowering quarters. It is wise, however, to leave all the very tender subjects until last. Should the soil be very dry, it will be necessary to apply water as soon as the plants are in their places. Avoid unduly splashing the foliage with soil, but see that a sufficient quantity of water is given to thoroughly settle the earth around the plants.

Dahlias which have been thoroughly hardened off may now be planted out too, and in their case it is best to first drive in the stakes which are to support them later on and then plant; this prevents any injury to the roots or tubers.

Roses.—The young growths on Roses must be occasionally examined for maggot, which is easily seen by its habit of rolling itself up in the leaves. These should all be squeezed between the finger and thumb. Some varieties are much improved by a certain amount of disbudding; but where a continued display of Roses is the object, this is not usually necessary. As soon as any green fly makes its appearance, spraying with Quassia or a similar insecticide is necessary.

The Hardy Fruit Garden.

Stone Fruits, such as Plums, Apricots and Peaches, if set well, will require severe thinning before they become too large or commence to stone. Usually a certain amount of dropping occurs, especially among Plums, if the soil is deficient in lime, so that it is safer to keep this in view and not thin too severely at first.

Peaches and Nectarines.—Disbudding should still receive attention, making sure that the shoots are sufficiently reduced to retain a uniform spread of branches. If this is properly attended to, it will not be necessary to use a knife for pruning during the winter, a practice which has much to condemn it.

Fruit Under Glass.

Early Peaches and Nectarines.—As the fruits are now approaching maturity, they must be assisted to get all the light possible by adjusting them carefully just clear of the leaves and wires by the aid of wooden labels or short pieces of wood. The operation requires great care, but by this method much finer colour is developed in the fruit.

Successional Peach-Houses.—The trees ought to be regularly syringed during the early morning and in the middle of the afternoon, and fairly humid conditions maintained during fine weather. Water will be required at fairly frequent intervals, and opportunity should be taken to apply stimulants with it.

JOHN JEFFREY.
(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

SPRING SHOW AT CHELSEA.

HERBACEOUS AND BULBOUS PLANTS.

THE following was unavoidably held over from our last issue:

Messrs. Wallace and Co., Colchester, had a superb collection, making a special feature, as in former years, of the choicest Lilies. Of these, the lovely *L. regale* (white with yellow throat), *L. Brownii*, *L. excelsum*, *L. japonicum colchesterense*, *L. Hansonii*, *L. Martagon album*, *L. M. dalmaticum*, with many forms of *L. umbellatum*, made both sumptuous beauty and variety. Early *Gladioli*, *Eremurus robustus albus*, *Habranthus pratensis*, *Calochorti*, *Ixias*, the newer *Astilbes*, with *Funkias*, *Brodiaea coccinea*, *Globe-flowers*, *Bamboos*, *Verbasiums* and such also created beauty and interest.

Messrs. Jackman and Son, Woking, had a considerable exhibit of *Delphiniums* in variety with such of the newer *Astilbes* as *Ceres* and *gloriosa* (both high-coloured sorts), *Lavatera Olbia*, early *Gladioli*, *Liliums* of sorts, *Tree Lupines*, *Columbines*, *Irises*, *Wahlenbergia vincaeflora* (very rich blue) and other good plants. *Cytisus Dallimorei*, *Euphorbia Characias* and *Gaillardia E. T. Anderton* (a self yellow) were among other showy and good things.

Mr. Amos Perry, Enfield, Middlesex, had a superb hardy plant exhibit in the middle of the large tent, and his display of hybrid *Irises* was very fine. Too numerous to give in detail, they were worthy of special study, some of them, as, for example, the *Regelio-cyclus* hybrids and their near allies, being very beautiful. *Chrysanthemum Leucanthemum flore pleno* is a white-flowered novelty of importance, approximating in effect to a white *Anemone*-formed *Pyrethrum*. *Primula viridis* was very good. *Euphorbia Wulfenii*, *E. Characias* and *E. pilosa major* were a set of these interesting plants too good to be overlooked. *Viola oregana* (in crimson and cream) was a gem fitted for any alpine garden. *Dianthus Atkinsonii* was very brilliant, while *Primula sikkimensis*, *P. Rufa*, *Trillium*, *Dodecatheon* and much more contributed to a highly interesting group. *Tree Pæonies* in a group alone were very fine, and of these *Queen Elizabeth*, *Comtesse de Tudor* (deep salmon), *Souvenir de Ducher* (purple), *Onyx* (pale pink) and *Souvenir de Corwellieri* (rich rose) were some of the best. In a further group in the open Mr. Perry showed a representative set of hardy Ferns.

Messrs. Bunyard and Co., Maidstone, had a fine display of *Flag Irises*, *Tree Pæonies* in variety, a great showing of *Pentstemon Scouleri*, with *Phlox Laphamii*, *Geum Heldreichii splendens*, *Eremuri*, *Thalictrum dipterocarpum* and other plants. *Iris pallida Lohengrin* (of rosy lilac tone) was a plant of great beauty in the group, and is one of the finest of its set.

Mrs. Lloyd Edwards, Bryn Oerog, near Llangollen, showed a fine lot of *Mossy Saxifrages*, of which *Lady Northcliffe* (white), *Red Knight*, *Diana* (very large white), *Jewel*, *Rose Beauty* and *Divinity* (pink) were some of the more distinct.

Messrs. Wallace and Co., Colchester, had a superb table of *Flag Irises*. The *Dove* (mauve), *Blue Boy*, *Walhallia* (light mauve), *The Bride* (white), *Etta* (lemon), *Mars* (purple), with such as *susiana*, *tingitana* and a few of the *Primula* section, made a very fine display.

Mr. G. W. Miller, Wisbech, had a group of *Delphiniums*, *Verbasiums*, *Globe-flowers*, *Geums*, *Pyrethrums* and other flowers in season.

Messrs. G. and A. Clark, Limited, Dover, had an effective group of *Globe-flowers*, *Pyrethrums*, *Astilbes*, *Geums*, *Poppies*, *Flag Irises*, *Mossy Saxifrages*, *Euphorbia Wulfenii*, *Camassias* and other flowers. The grouping was very well done.

Messrs. Phillips and Taylor, Bracknell, had an excellent grouping of *Trilliums*, *Auriculas*, *Daphne Cneorum*, *Saxifraga cordifolia purpurea*, *Primula pulverulenta*, *Trollius* and water plants. *Lithospermum prostratum* was very good.

Messrs. Barr and Sons, Covent Garden, had a great show of *Irises* and other choice hardy flowers that merited close inspection. *Iris Pavonia* ("Peacock Iris" so-called, though more correctly *Moræa glaucopsis*) was very charming. *Cypripedium pubescens* was a show in itself. *Dodecatheons*, early *Gladioli*, *Double Poet's Narcissus*, *Flag Iris*, *Androsace Chumbyi*, *Brilliant*, *Gentians*, *Trilliums*, *Ramondia pyrenaica* and *Ranunculus amplexicaulis* were all in bold array and excellently staged. *Iris susiana* was very finely displayed.

winnock (dark brown with red edge) and *Moseley Perfection* (yellow) were a few of the outstanding varieties. More typical of the *Viola* or *Tufted Pansy* were *Kitty Bell*, *William Robb*, *Modesty*, *gracilis* and several *cornuta* varieties.

TULIPS.

The group of May-flowering Tulips shown by Robert Sydenham, Limited, Tenby Street, Birmingham, was inadvertently omitted from our report of these flowers in our last issue. The exhibit comprised some thirty varieties, including the best of the standard sorts, the whole being displayed so as to show them off to the best advantage.

ALPINES IN TENTS.

Mr. James Box, Lindfield Nurseries, Hayward's Heath, showed a fine table of alpenes, the chief of which were *Lewisia Tweedyi*, *L. Howellii*, *L. Cotyledon*, *L. oppositifolia* and *Anemone sulphurea* (very fine). *Onosma taurica*, *Silene Hookeri*, *Sedum pilosum*, *Trollius Orange Globe*, with alpine *Phloxes*, *Cytisus*, *Acers* and other shrubs, were included in a good exhibit.



THE BEAUTIFUL GROUP OF DELPHINIUMS IN POTS SHOWN BY MESSRS. BLACKMORE AND LANGDON AT THE CHELSEA SHOW.

Mertensia Pulmonaria was very beautiful, and *Listera ovata* is one of the most charming.

Messrs. Lilley, Guernsey, had one of the most graceful exhibits in the show, a group replete with beauty and great charm. *Ixia*, *Ranunculus*, early *Gladioli*, *Spanish Iris* and their new "Dutch" rivals, the *Peacock Iris* (*Moræa glaucopsis*) and the *Mourning Iris* were all here in excellent form. A very conspicuous subject was *Tritonia Prince of Orange*, also very beautiful.

Messrs. Blackmore and Langdon had a group wholly of *Delphiniums*, and the many varieties were well staged. *Walter T. Ware*, of the deepest purple with white eye; *Queen Wilhelmina*, pale mauve; and Mrs. A. J. Watson, mauve, were some of the finest varieties in a really striking exhibit. No group in the show compared with it, and those of our readers who take pleasure in these fine perennials—and who does not?—found here much to admire.

Messrs. John Forbes and Co., Hawick, had a capital exhibit of *Pansies* and *Violas*, of which Mrs. Alsop (deep mauve), *Miss Dove* (chocolate), *James Wilson* (purple with white edge), *Loch-*

Mr. Vernon T. Hill, Langford, near Bristol, showed *Primula japonica* in variety very finely, *Androsace Chumbyi*, *Asperula suberosa*, together with *Aubrietia Fire King* (very bright and good), alpine *Phloxes*, *Erodium corsicum*, *Mossy Saxifrages* and much more in variety. Flowering and other shrubs were pleasingly associated.

HORTICULTURAL SUNDRIES.

The sundries, which are now an important feature of the Chelsea Show, were principally arranged along the Avenue and in an adjoining tent. The exhibits were considerably fewer in number than on previous occasions.

On entering the East Gate, a striking exhibit of stonework, consisting of balustrading, complete with flower vases, garden seats and ornaments, and a paved garden court, decorated with suitable flowering plants, was arranged by Messrs. Pulham and Son, 71, Newman Street, Oxford Street, W. This must have appealed to those who are contemplating alterations to existing gardens or making new ones.

The Dryad Cane and Metal Works, Nicholas Street, Leicester, had a garden house, constructed of a strong Pine framework and roller Bamboo drop sides, and a stout canvas roof.

Patent extension ladders and barrows, suitable for all kinds of garden requirements, were shown by Mr. H. C. Slingsby, Old Street, E.C.

Mr. Arthur Roberts, Leyfield Road, West Derby, Liverpool, showed some useful examples of heating apparatus, including low-pressure boilers in various sizes and some patent ventilating gear.

Mr. Percy F. Bunyard, 57, Kidderminster Road, Croydon, had a comprehensive display of Bunyard's Improved Fumigating Compound in connection with special horticultural sundries adapted for use in the garden and greenhouse. A special feature was the "Incanto" acetylene lamp for garden use.

The Acme Patent Imperishable Labels, with bright letters on a black ground, were shown by Mr. John Pinches, Crown Buildings, Camberwell, who also displayed Rose boxes with patent raiser and hinges, which are most suitable for exhibition purposes. Wire trainers for Roses in the form of umbrella standards, together with patent "Radiate" flower stands, comprised one of the most useful and portable inventions for the exhibitor. Small bottle sprayers were also a feature of this stand.

Mr. Joseph Singleton, 28, Hall Road, Fullwood, near Preston, showed various patterns of the "Muspray," for fixing to water-cans, &c.

The Gripper Manufacturing Company, Howard Road, Leicester, showed some useful articles in the form of a garden walking-stick gripper and foot-scraper.

Portable garden frames and glass houses suitable for the cultivation of either special or general classes of plants were shown by Messrs. James Crispin and Sons, Nelson Street, Bristol, who also had suitable boilers and heating apparatus to use in conjunction.

Messrs. Crookshanks and Macself, 9, Cromwell House, Fulwood Place, Holborn, W.C., had a useful exhibit of spraying machines in various sizes, adaptable for both garden and conservatory work, together with bowls and vases of Bilton ware.

Teakwood chairs, tables and garden furniture of artistic design were shown by Castle's Ship-breaking Company, Limited, Millwall, S.W. These are made from the timber of old men-of-war, and can be adapted for either indoor or outdoor use.

A unique exhibit of old-world garden stone ornaments, in the form of stone pillars for pergolas and paving for garden paths and courts, together with some most ornamental designs of stone lanterns, pigeon-houses and dovecots, were arranged in an artistic manner by Mr. Herbert Jones, Horsecombe Quarries, Combedown, Bath.

The Acme Ladder Company, Summerley Works, Earlsfield, had a useful series of ladders, folding steps and garden barrows.

A variety of syringes and spraying machines, of sizes suitable for various requirements, both indoors and in the open garden, in the most approved and up-to-date patterns, were shown by the United Brassfounders and Engineers, Limited, Holloway Head, Birmingham.

Messrs. G. W. Purser and Co., 92, Hatton Garden, E.C., had a stand consisting principally of spraying apparatus, syringes, hose sprinklers, &c.

Messrs. Drew, Clark and Co., Lea Bridge Road, Leyton, E., had examples of the Diamond patent telescopic and other ladders.

A miniature lawn, showing the use and value of Key fertilisers, was displayed by Mr. A. Key of Norwich.

The Four Oaks Spraying Machine Company, Sutton Coldfield, Birmingham, had a stand showing a selection of spraying machines, pumps for garden use, syringes, sprinklers, &c.

Messrs. Hughes, Bolckow and Co., Dover Street, W., and Battleship Wharf, Blyth, showed a large and varied display of "Battleship" teakwood garden furniture. This included a choice selection of garden chairs, seats, plain and folding tables, in ornamental design; also garden arches suitable for climbers of all descriptions.

Messrs. Thomas Crowther and Son, North End Road, Fulham, showed old garden ornaments, sundials, seats, and figures in marble, lead and stonework.

Folding span garden lights and frames, filled with growing plants to illustrate the value of the system for forcing early vegetables and flowers and for the protection of the more tender plants, were shown in use by the Folding Span Light Company, Slough.

The Leyton Timber Company, Limited, Trundleys Road, New Cross, had an exhibit of summer-houses in rustic work, and garden seats and furniture generally.

Messrs. Pearce and Co., 644, Holloway Road, N., had examples of their productions in the form of greenhouses, rustic summer-houses, and boilers suitable for all types of glass houses.

Messrs. Skinner, Board and Co., Exmoor Street, Bedminster, Bristol, showed an excellent example of their wire tension glass houses, together with the new travelling plant frames and protectors constructed on similar principles. Boilers and heating apparatus were also a speciality of this display.

Messrs. Maggs and Co., Bristol, showed teakwood garden seats, together with folding chairs and tents.

IN THE SUNDRIES TENT.

Fame's Fertiliser, Ichthemic Guano and other fertilisers for which this firm is noted were to be seen and their uses explained at Messrs. Prentice Brothers' stand in the Sundries Tent.

Insecticides, including the famous Gishurst Compound and other well-known remedies, were the leading feature of Messrs. Price's Patent Candle Company, Limited, Belmont Works, Battersea.

Messrs. Walter Voss and Co., Limited, Glengall Road, Millwall, E., showed a selection of sprayers and syringes in conjunction with their noted "Carlton Brand" insecticides and fertilisers.

Horse lawn boots, for use while mowing, rolling, &c., were shown by Messrs. H. Pattison and Co., Greyhound Lane, Streatham, who also had specimens of their patent turf renovators, sprinklers, hose-reels, brooms and weeding appliances.

Messrs. E. A. White and Co., Limited, Paddock Wood, Kent, showed patterns of the Abol syringe with all the latest improvements, in conjunction with Abol fertilisers, insecticides, sprayers and other sundries.

Insecticides, including Cyllene and other compounds, also fertilisers and syringes, were staged by Jeyes' Sanitary Compound Company, Limited, Cannon Street, E.C.

Wakeley's Patent Hop Manure for the garden, which is certainly the best substitute for stable manure, being cleaner in use and quicker in action, was shown on a stand in the tent, and those who find a difficulty in securing a regular supply should write direct to Messrs. Wakeley Brothers and Co., Limited, Honduras Wharf, Bankside, S.E.

Messrs. William Cooper and Nephews, Berkhamsted, had a well-arranged stand, showing weed-killers, insecticides and spraying pumps.

Models of glass houses fitted with lath blind were staged by Messrs. J. Weeks and Co., 72 Victoria Street, S.W., who also had a model of their original Duplex boiler, together with the latest designs adapted to use at any level. The flow is taken off the centre of the boiler, which is arranged to stand at a dead level, enabling the entire system to be worked on the return if required.

The Boundary Chemical Company, Cranmer Street, Liverpool, had a display of their well-known brands of weed-killers, lawn sand, sprayers, syringes and patent cord netting.

Samples of fibrous yellow loam of excellent quality and texture were shown by Mr. A. B. Johnston, New Park, Cranleigh, Surrey.

Improved watering-cans of the well-known "Haws" pattern were arranged in a selection of sizes by Mr. J. Haws, 227, Lower Clapton Road, London, N.E.

Mr. S. W. McLeod Braggins, 6, Tudor Road, Kingston Hill, Kingston-on-Thames, had a selection of landscape garden and other plans.

Some interesting plans and designs of work carried out by Messrs. R. W. Wallace and Co., Kilnfield Nurseries, Colchester, were arranged on their stand, together with proposed schemes for planting.

Messrs. Milner, Son and White, 7, Victoria Street, S.W., also showed various garden plans and designs.

Some well-arranged garden plans and photographs of rock gardens designed by Messrs. Pulham and Sons, Newman Street, Oxford Street, W., were displayed in the tent.

Garden plans were arranged by Messrs. Kent and Brydon, Victoria Road, Darlington.

Plans and designs for gardens were also shown by Mr. William Innes Stuckey, 46, Dyne Road, Brondesbury, N.W.

Messrs. Waterer, Sons and Crisp, Limited, The Arcade, Liverpool Street, and Bagshot, Surrey, had a special selection of garden plans.

CALLA GLORY OF HILLEGOM.

So many novelties reach this country from Holland that the average garden-lover can hardly keep pace with them. Some, however, are of such sterling value that they are deserving of the widest culture. Such a one is the new yellow Calla (or Arum) Glory of Hillegom. In the way of growth it is the grandest yellow Calla in existence, being robust, strong and free. The leaves are large, flecked with silver, and the large flowers, borne upon stout stems, carry a wonderfully pleasing shade of soft yellow, one of the clearest and prettiest yellows it is possible to conceive. At the base of the blossom is a crimson blotch. The flowers are lasting, and I can imagine no more charming companion to *C. elliotiana* than the present subject, *C. Glory of Hillegom*. A good future is assured this plant, and I would heartily commend it to the notice of growers.

P. S. HAYWARD.

THE GARDEN.

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JUNE 5, 1915.

NOTES OF THE WEEK.

A New Kew Hand List.—We have just received a copy of the second edition of the "Kew Hand List of Tender Monocotyledons." This has been brought up to date, and is neatly bound in green cloth covers. The contents are arranged alphabetically, so that it is an easy matter to find any genus or species required. This arrangement is much better than the grouping of genera together under their respective Natural Orders. The Hand List can be obtained from the Royal Gardens, Kew, price 1s. 6d. net.

The Snowdrop Anemone.—The pure white flowers of *Anemone sylvestris* are to our gardens in spring what the well-known Japanese kinds are in the autumn. Although its flowers are not so large as those of the many forms of *A. japonica*, they are produced in abundance, and are very effective. We have an attractive mass of it intermixed with the double-flowered *Lychnis diurna*, while at the back of it is a large mass of the rich dark blue *Symphytum peregrinum*. Growing on the edge of a shrubbery, the three make a very charming picture.

Roses and Pinks.—Both Roses and Pinks are such favourites in our gardens that it is surprising we do not more often find them in association. One would not, of course, advocate planting the Pinks between the Rose bushes, but where a permanent edging is needed to either beds or borders, few plants answer the purpose better. Even when not in flower the glaucous foliage of the common sorts of garden Pinks is pleasing, and it is not difficult to keep the plants within bounds. The accompanying

illustration represents Pinks used as an edging to a border of light-coloured Roses, such as *Mme. Abel Chatenay*, *Mme. Leon Pain* and *Pharisæer*, though they would answer equally well for those of darker hues.

Lady Gardeners at Kew.—We understand that owing to the difficulty in obtaining men, a number of lady gardeners are now being employed in the Royal Gardens, Kew. For a period prior to 1903 a few members of the fair sex were admitted as gardeners, but for some reason the practice was discontinued.

Trial of Winter-Flowering Begonias.—We are asked by the authorities at Wisley to publish

the following notice. We must, however, leave it to those who wish to send plants to ascertain whether they send them first and obtain the "necessary forms of entry" afterwards, or *vice versa*: "A trial of winter-flowering Begonias will be held at Wisley during the coming winter. Three plants of each variety should be sent immediately, addressed The Director, Royal Horticultural Society's Gardens, Wisley, Ripley, Surrey (station, Horsley, London and South Western Railway), from whom the necessary forms of entry may be obtained."

A Beautiful Yellow Tulip.—During the last few weeks we have derived considerable pleasure from a colony of the Cottage Tulip *Bouton d'Or*.

spring, and a bed of it at Kew a few weeks ago was a novel sight with the leafless branches terminated with clusters of white flowers. The showy part of each flower consists of a bundle of pure white stamens, about an inch in length, closely packed together, and each flower-head consists of from twelve to twenty of these flowers, the whole somewhat resembling a Bottle-brush. The effect of the whole is very refined and pleasing. It is a comparatively new introduction that will become a popular garden plant when better known. It is a free-growing, bushy shrub that will probably reach a height of 8 feet when mature, though the largest we have seen is only about half that size. *Fothergilla major* is a native of the Southern United States.

The First Roses of Summer.

It may be interesting to record that the first Roses opened in our garden in Essex on Whit Monday, the 24th ult. These were two blooms of the common Pink Monthly or China. On the following day several flowers of *Gloire de Dijon* were fully expanded, and on the 26th ult. the Hybrid *Rugosa Conrad F. Meyer* opened its first bloom. All the plants are growing against a wall with a southern exposure. The last named, though only planted two years ago last February, is now 9 feet high, and promises to reach the roof in the course of another year or two. Its large, silvery pink blossoms are very fragrant.

A Scarlet-Flowered Bulbous Plant.

Although by no means a novelty, *Habranthus pratensis* is one of those uncommon bulbous plants that are very seldom met with outside botanical collec-

tions. At the present time it is looking very bright, growing in a warm border in the Cambridge Botanic Garden. In such a position, and under conditions suitable for the *Belladonna Lily*, it will be found to thrive, and its bright scarlet flowers are conspicuous from a long distance. It is now included in the genus *Hippeastrum*, but is best known under its old name. It was introduced into this country from Chili in 1840, and a beautiful coloured plate of it was issued with *THE GARDEN* for December, 1878. Mr. Davison of Westwick House Gardens, Norfolk, is one of the most successful cultivators of this plant that we know.

Fothergilla major.—This is one of the most uncommon-looking hardy shrubs that flower in



PINKS AS AN EDGING TO A BORDER OF ROSES.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Amaryllis at the Chelsea Show.—We notice that in your excellent report of the Chelsea Show you have given us credit for Messrs. Bull's exhibit of Amaryllis, and in drawing your attention to the error we wish to give credit to whom credit is due.—ROBERT P. KER AND SONS. [We regret that a slip on the part of one of our reporters credited Messrs. Ker with the group of Amaryllis or Hippeastrums shown by Messrs. Bull.—ED.]

New Zealand Spinach.—In "Notes of the Week," issue May 29, the cultivation of this Spinach is recommended, and rightly so. Thirty years ago I saw it cultivated for the first time, and as it was my duty to serve the vegetables

stamens, while the lower one acts as a platform on which insects may alight to enter the flower. It is a native of Western and Southern Europe, extending from Flanders over France to Spain and Italy. Another member of this genus is *L. squamaria*, a native of this country. This is also worthy of attention. It is usually found on the roots of Hazel, but it will succeed on other tree roots. These plants are closely allied to the Broom-rape (*Orobanche*), and were at one time included in that genus. They are readily raised from seeds, which should be sown near the roots of the host plant.—F. G. PRESTON.

The Cultivation of *Lupinus polyphyllus*.—May I be allowed to answer the criticisms of Mr. E. T. Ellis, which appear on page 243, issue May 22. I admit that I over-estimated the length of the roots, but they were certainly 1½ feet to 2 feet long. I discovered the length

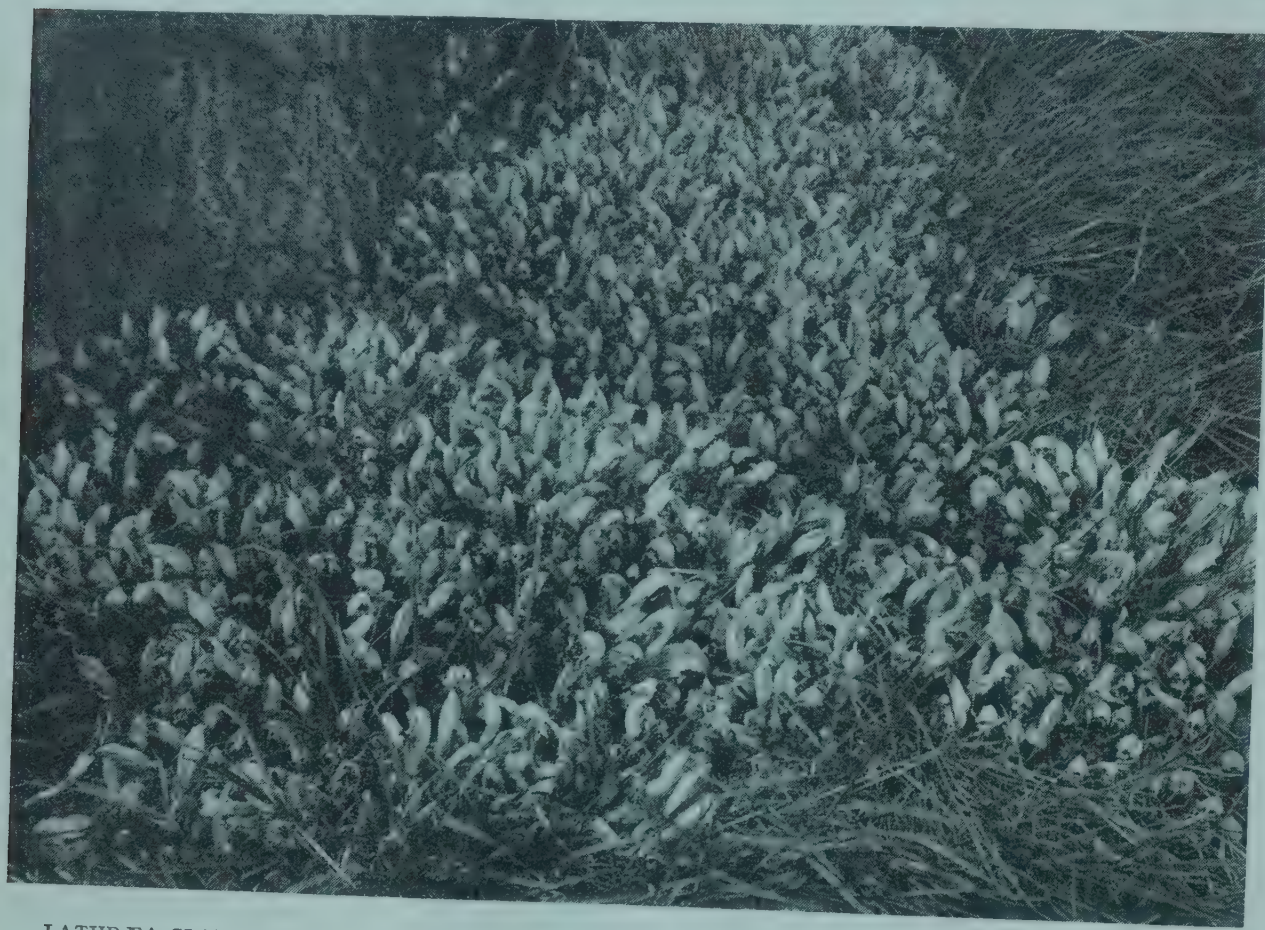
better than those moved in the spring do the early drought.—GARDEN STEWARD.

About Apple Blossoms and Other Things. In early childhood I once horrified my elders by expressing a fervent hope that I might never "have to go to Heaven." Dr. Isaac Watts was chiefly to blame for this heterodox remark. The "never-withering flowers" of the hymn associated with a certain Dresden china shepherdess and I did not want to exchange my Buttercups and Daisies for flowers like hers. As for music and white raiment, I frankly hated both as two great trials of my life, in the forms of "practising" and the white pinafores and stockings we little girls wore in Mid-Victorian times—they told such terrible tales of trespasses among coals and jam. "Time cannot wither thee, nor custom stale Thine infinite variety." So said Cleopatra's lover. But methinks it is in part their fugitiveness

which makes flowers so dear a joy. This is one reason why I dislike "bedding" in a private garden. It so soon becomes tiresome and uninteresting. I can even imagine the Rev. J. Jacob might possibly tire of Tulips and Daffodils if they lasted continually (though what he does when their time is over I cannot think, unless, to be Irish, he hibernates all the summer). It is the short stay of the Apple blossoms this year which has given rise to these reflections. Never since first I saw Apple blossom do I remember it so profuse and lovely, nor so short-lived. Being "Cockney, born within sound of Bow Bells," I never saw country sights until, just after the Franco-Prussian War, we moved a little way out of London, and my mother—true to the instinct of her French refugee forbears—immediately planted some fruit trees. Even at this distance of time I recall my breathless delight when first I saw the fruit blossoms, and how, later in the year, I attempted my first painting from Nature—a Louise Bonne of Jersey Pear, whose rich colour caught my fancy. It is still my favourite Pear. *A propos* of Apple blossoms, I do wish Mr. Bunyard and others would tell me which Apples have the

most beautiful flowers. I know Lane's Prince Albert, Bismarck, and the old French Codlin have pretty suffused pink flowers. Mr. Bunyard specifies Lord Derby and Golden Spire in one of his catalogues; but what I want are the names of other Apples which have first-class fruit as well as lovely blossom, to plant in some of the still vacant spaces in my new orchard next autumn.—ANNE AMATEUR.

Golden-Flowered Richardias.—The much-admired group of *Richardia Pentlandii* exhibited at the recent Chelsea Show by Sir James Horlick, West Dean Park, Chichester, served to recall the time when the first golden-flowered species created quite a sensation in the horticultural world. This was on May 19, 1890, when a single plant of *R. elliottiana* was shown at a meeting of the Royal Horticultural Society, and a first-class certificate was awarded it. For the introduction of *R. elliottiana* we are indebted to Captain



LATHRÆA CLANDESTINA, AN INTERESTING PARASITE, GROWING ON THE ROOTS OF A POPLAR IN CAMBRIDGE BOTANIC GARDEN.

to the kitchen that year, which was hot and dry late in the summer-time, I found the New Zealand variety extremely useful. Where naturally dry soils obtain, this Spinach succeeds though the summer variety fails. I find it a good plan to lay down a few Pea-sticks on both sides of the row for the branches to trail over.—AVON.

An Interesting Parasite.—Although a parasite, *Lathræa clandestina* claims attention for its attractiveness as well as from an interesting and curious point of view. It is well worth a place in our gardens or woodlands, particularly in a moist and partially shady position. It grows on the roots of Poplar and Willow, but chiefly on the former, where it will form large masses, which are at first in the form of whitish scales, later producing erect flowers with a purple corolla 1½ inches to 2 inches high, and at the present time they are most conspicuous. The structure is interesting, as the upper lip forms a cowl over the

by digging them up to transplant them in their permanent quarters. "Saved" should be "sowed," as I had to buy fresh seed each year, because my seedlings never developed more than a few weak leaves before dying away until dressed with the soil containing bacteria. I can quite believe that *Lupinus* always remains small near Sheffield, having spent a good many years trying to make plants grow on a hillside not many miles from that town. My present locality is one of the Eastern Counties, the soil very light gravel, the rainfall one of the lowest in England, the summer of last year exceptionally dry, so that the roots would strike downwards more than usual. The seeds were sown in a frame in early spring, then pricked out in a nursery bed, and finally transplanted in the autumn, as I have learned from sad experience that, with such a soil and climate, spring planting is fatal, and that plants moved in the autumn generally stand the winter

Elliott of Farnborough, Hampshire, who had a few seeds from South Africa given him. Only one germinated, but when it flowered it proved to be so distinct and beautiful in its colouring as to be admired by everyone. Fortunately, the plant in question produced seeds which proved to be true to the parent, so that by the summer of 1892 a fair stock was obtained, which on June 17 of that year was sold by Messrs. Protheroe and Morris. The highest price realised for a single plant was 17 guineas, and the lowest 14s., these last being very small. Since then, owing to the readiness with which it can be raised from seeds and from importations of bulbs that have taken place, *R. elliottiana* has now become common, and can be obtained at quite a cheap rate. Apart from the golden colour of its blossoms, a notable feature of *R. elliottiana* is the translucent blotches on the leaves, while the stalks are also mottled.

The second golden-flowered species to make its appearance was *R. Pentlandii*, which was shown in June, 1892, and awarded a first-class certificate by the Royal Horticultural Society. In this species the leaves are larger and thicker than those of *R. elliottiana*, while they are of a very deep green colour. The flowers, too, have a pronounced but for the most part small blotch of crimson at the base. Though the leaves of *R. Pentlandii* are quite green in the typical kind, I have among imported tubers occasionally met with a specimen which, agreeing in all other particulars with *R. Pentlandii*, had leaves sparingly spotted. The species just named was first introduced from South Africa by Mr. R. Wyte, Pentland House, Lee. During the Boer War a considerable number of these *Richardias* made their way into this country. While the common Arum Lily is a native of Cape Colony, these golden forms occur further north, where warmer conditions prevail. While the specific name of *Pentlandii* occurs in the "Kew Hand List" and also in the *Botanical Magazine*, in the "List of Plants Certificated by the Royal Horticultural Society" it is referred to as *R. angustiloba*.

Though such a magnificent group as that shown at Chelsea proves that the culture of these *Richardias* is fully understood, yet it was not always so. A good deal of confusion at first prevailed, owing to the fact that these golden-flowered species were first referred to as yellow counterparts of the Arum Lily, whereas they differ markedly therefrom. The tubers of *R. elliottiana* and *R. Pentlandii* are flattened like those of a *Caladium*, and they both pass the winter in a state of absolute rest. The tubers should be potted in the early months of the year, according to the time at which they are needed to flower, in a fairly rich compost suiting them well. If they are placed in the temperature of an intermediate house, growth will be rapid, both below and above the ground. When the pots are well furnished with roots, an occasional stimulant will be useful. Apart from seeds, which afford a ready means of increase, the tubers produce offsets freely. After flowering, the plants should be encouraged to make good growth, and as the season advances be gradually hardened off. They may for a time be kept almost, if not quite, dry.—H. P.

FORTHCOMING EVENT.

June 8.—Royal Horticultural Society's Fortnightly Meeting and Exhibition, Vincent Square, Westminster, 1 p.m. to 6 p.m.

TULIP NOTES.

BY THE REV. JOSEPH JACOB.

The Coming of the "Self" into Fashion as a Garden Plant.—I remember reading in one of the books that were so eagerly consumed at the outbreak of the war, by way of explaining how it came about that we in England were so ignorant of the German ideal of world conquest, that it took a book a hundred years to cross the North Sea. It has taken a much longer period for the self-coloured Tulip to be appreciated as it undoubtedly should be. It was only after being in our gardens for nearly three hundred and fifty years in its broken or striped form that garden-lovers became aware that the despised late-flowering self colours had very great latent possibilities as plants of high decorative value. They were exceptionally bright, and they flowered at a time of the year when colour was wanted. When the first book *wholly* given up to Tulips was published in 1654 ("Le Floriste François"), the most highly esteemed varieties were the Marquelines or Marquetrines, which had four or five shades or colours in their markings—"C'est cette sorte de Tulipe qui emporte le prix sur les autres."

I suppose Summer Beauty (syn. Striped Beauty) gives us as good an idea as any of the sort of thing that pleased the early seventeenth century Tulip fanciers. Chameleon would be another, and the little-known Kaleidoscope a third that might be instanced. In 1854 it was still stripes, but the many-coloured coat had become more subdued in tone and its ornamentation must be arranged in a particular way. Thanks to such men as Gibbons of Chellaston, Slater of Manchester, and, later still, Hardy of Warrington, Hepworth of Wakefield and Ashmole of Middleton, the present type of pure bases, symmetrical markings, correct shapes and solid colours was practically established. As examples we have Sir Joseph Paxton, Annie Macgregor and Talisman. It was less perfect varieties of a similar type that alone were denizens of our gardens sixty years ago. "Look, my dear," said an old lady to her daughter who was going round my garden a few days before this was written, on coming to a bed full of these striped kinds, "Look, Kathleen, these are the Tulips that we had in my young days." There was no sign of regret at seeing them dethroned. As her eyes wandered on to some selfs in the next bed, she simply said, "I like these so much the best." The old lady, in her obvious penchant for the one-coloured blooms, was but expressing the feelings of nine out of every ten people. At the present moment selfs are in the ascendant. This great change in fashion has thrown overboard all the old divisions, or perhaps I should rather say has caused them to fall into disuse, and the terms "flamed" and "feathered," "bybloemen" and "bizarre" are very little better understood than Marquetrine or Agate of the middle of the seventeenth century. We have a more or less confused mass of varieties filling the modern catalogue which badly need authoritative classification. The present state of things is very mystifying. I sincerely hope that the scheme of the joint committee of the Royal Horticultural Society and the Dutch Bulb Growers' Association will be accepted by all traders, British and Dutch, and that as soon as it is published everyone will do their best to make it known.

Mr. A. D. Hall's Lecture.—Mr. Hall's lecture on the afternoon of the last day of the Conference was intended to serve as an introduction and send off to this new scheme. The fact that so little is known about the parentage of garden Tulips and that the work of breaking up what are obviously hybrid forms into their original species has never as yet been accomplished—Mr. W. R. Dykes of Iris fame is just setting about it, but it will be a long, long way to the end—it is impossible to frame any strictly scientific system of grouping. The one about to be put forward is based on *garden convenience*, and historical and scientific considerations are almost entirely left out of count. "It aims at bringing together those Tulips which have a similar habit and which can be harmoniously associated in the garden." The oldest division that we find in English flower books was that which classed Tulips as early, mid-season and late bloomers. As we have but few midseason varieties, the proposed classification leaves out that section and boldly divides all varieties into early and late flowerers as its main groups.

Those which in ordinary seasons are in full flower before the end of April are classed as *early flowerers* or *earlies*. They are generally of a dwarf habit, and for the most part are self-coloured. The subsections here are two—single and double.

The proposed name for the second main division is *May-flowerers*, and they are described as garden varieties, mostly of a tall and robust habit, which usually flower after May 1. Here the difficulty begins, because, take any principle of useful division that one can think of, the dividing line is exceedingly difficult to draw. There are such numerous gradations both of shape and markings that a wide borderland has to be somewhat arbitrarily divided. The main subsections are (a) Cottage, (b) Breeder, (c) Broken, (d) Parrot, and (e) Species. The last one includes all the true species, which, as Mr. Hall says, have not been "messed about," not necessarily those with Latin names like *retroflexa*, *elegans* and *gesneriana* *spatulata*, which are now known to be but garden hybrids.

Taking the above subsections in order, the *Cottage* is a large amorphous group of self-coloured, generally long-shaped flowers of various tones and shades of yellow, red, mauve, or purple. We may have true cups, like *Bouton d'Or*; long blooms, like *Mrs. Moon*; some with graceful recurving petals, like *elegans* or *retroflexa*; others egg-shaped, like *Fairy Queen*; and so on *ad infinitum*.

The *Breeders* are subdivided into (a) Dutch, (b) English and (c) Darwins. As a group they may be described as self-coloured flowers, opening after the manner of a cup with rounded petals, and as a rule strong and vigorous growers. This characteristic is particularly noticeable in the Darwins, and this, together with their being all white ground varieties, constitutes the salient feature of the section. (All Tulips have either white or yellow grounds, which can be seen by an examination of the base or bottom of a flower, or by peeling off the inner or outer skin of a petal, which then discloses a middle layer which is either yellow or white and of the same colour as is to be seen in the base.) Dutch Breeders are longer and more egg-shaped than the Darwins. English Breeders are more cup-shaped and not so long, and are further distinguished by the *pure* colour of their bases.

Broken Tulips are similarly divided into Dutch, English and Rembrandts, which is the name now given to broken Darwins. To a considerable extent they follow the lines of the Breeder divisions.

Parrots are Tulips with lacinated petals. Up to the present they have all had yellow grounds. There is, however, no reason why there should not be white grounds in the group, as I think it

to reduce the huge mass of Tulips, many so much alike that none but an expert could separate them, and then only after a very careful comparison, to something like manageable numbers, to the relief both of the overburdened trader and the doubtful purchaser. Each suffers from the plethora of names (varieties?).

I hope the gardening public will make use of the Royal Horticultural Society's booklet as

one must see to it that some of the oldest wood is cut away annually, and this can best be done in the summer, just after the first crop of bloom.

Tea Roses such as White Maman Cochet and Marie van Houtte, which also were left unpruned against walls, have buds swelling rapidly, and the liquid manure just given should make them yield fine quality flowers. It goes without saying that Roses allowed to carry large quantities of

buds must be correspondingly fed, and now is the time to do it.

Thinning Shoots.—I would urge upon amateurs the need for a thorough thinning of weakly shoots from the centres of the plants. If retained, they make a fine retreat for insect foes, and when one is spraying they hinder the more effectual carrying out of the work.

Feeding.—One must not forget that the very wet winter has consequently deprived our Roses of much of the soil nourishment in the shape of potash, &c.; so that it will be necessary to replace this shortage by timely dressings of a good all-round stimulant, such as Clay's Fertilizer, Wakeley's Hop Manure or Ichthemic Guano.

Keeping Down Weeds.—I do not recall a worse season for weeds, and with shortage of labour it is as much as one can do to keep them down. Timely hoeing is the best remedy, and for amateurs this should not be an onerous task; but where one has acres to go over, it becomes a most strenuous occupation. Happily, by planting 600 to 800 plants a yard apart in long rows, one can use a pony hoe to much advantage. I would strongly advise amateurs to obtain a Buco Cultivator. It is a grand tool, and allows one to walk backwards and loosen

the soil, so that treading on the ground after it is loosened is avoided. The Canterbury Hoe is also excellent for prodding up rather stiff soil; and another hoe I came across last year, called the "Andyho," is a great labour saver. One side is pointed arrow shape; the other, wedge shape; and, being made of best steel, it gets over the work admirably. I believe in a good loose surface, so that air, warmth and water may enter freely. Mulchings of manure before June are a positive nuisance.

Mildew.—Where mildew has been troublesome in past seasons, I would advise a liberal dressing of green sulphur to the soil. This, together with careful spraying with Seride No. 2, will enable anyone to keep fungoid and insect pests in check. For the ordinary Rose grub the thumb and finger is the safest remedy, and the plants need going over every day, and even twice a day, if we would free them from this terror.

Rose Species.—The lovely little Scotch Roses will soon be opening, and there are also many beautiful gems among the various species which I would make a claim for, where space permits. I have a walk containing some three hundred different varieties of ramblers and what I term "uncommon" Roses, and it is a real delight to watch the daily opening of the different kinds. Here I have planted the old Apothecaries Rose and many of the dear old Gallicas and Hybrid Chinese that so delighted our grandparents. DANECROFT.



SOME OF THE POLYANTHUSES IN THE GARDENS AT WOODSIDE.

is now generally recognised that any variety may sport into a Parrot form. Within the last three or four years Messrs. Barr and Sons have listed such a one in their byblœmen with lacinated petals—Sensation.

The *Species* I have already referred to. Some of those usually placed under this heading in catalogues may in time be found to be hybrids. Like Haworth's species Daffodils, when tested by the process of seedling raising they may be found wanting.

The Conference Show.—A cut-and-dried scheme like the above would lose more than half its value unless every Tulip was placed in its proper subdivision, and grouped in those subdivisions according to its colour. This was, as I said last week, one of the reasons for gathering together such a large collection at Vincent Square. In the case of the Cottages and the Darwins, the long and difficult process of selection and combination has been carried out very fully. It will be a guide as to the different varieties that may be grown together without any clashing of colour, and in this way it will be of great utility to gardeners. To make things still plainer, a typical flower has been selected in each colour group, so that there may be no doubt as to what is the colour meant. About four of the best varieties in each have been singled out for detailed description. In this way I hope a start has been made

soon as it is published. I am sure it will prove an immense boon to all if it only comes into general use.

PROSPECTS OF THE ROSE SEASON.

I CANNOT recall a more promising season for Roses than the present. The glorious sunshine of last summer ripened the wood so effectually that we are now reaping the result in fine, healthy growths. I also consider it a very early season, especially for the Teas and Hybrid Teas. The Rose species are, if anything, a few days later. Last year Rosa Hugonis was out well on May 15; this year it did not open until May 20. The first to open with me this year was Rosa sericea pteracantha on May 19.

In my part of Essex we have had little or no spring frosts to check growth, so that Roses such as Irish Elegance, which I never prune, are covered with delightful, healthy buds. Some of the Pernetiana Roses, such as Mme. Edouard Herriot, Lyon Rose and Mme. Ruau, which I purposely left unpruned, are carrying splendid buds. I feel sure, given a good spring, this class of Rose may be left practically unpruned. Of course,

SEASONABLE NOTES ON AURICULAS.

THE bulk of the repotting should be done in May; but where it was not possible to complete the work, no time should be lost, and the end of June ought to see the repotting finished. Exception, of course, must

be made with those plants that are being used for seed purposes; but directly this is gathered, they may be repotted. All seed-bearing specimens must be kept well supplied with water, or the seed will be poor in quality and slow in germinating.

Suitable Positions for the Auricula.—The hot, dry months of the year are always trying for Auriculas and, in fact, most of the Primula family, and whenever possible a cool, shady spot should be chosen. As a general rule, there are a few frames that are not required at this period of the year, and if these are arranged on the north side of a high wall or building, an excellent position can be provided. A sprinkling of fine ashes on the bottom will help to keep the plants cool and prevent them from becoming dry so frequently.

General Remarks.—All those plants that were repotted early in May will now be rooting well, and, as root action increases, water may be afforded more liberally; but until this stage is reached, moderation with the water-pot must be the rule, and only sufficient water should be given to prevent the foliage from flagging. A few of the lower leaves will perhaps turn yellow, and these should be picked off when they will readily part from the stem. In a previous article reference was made to the flower-stalks; at this season they will begin to wither up, and may be removed directly they will easily leave their base. At this point decay occasionally commences, especially among the show varieties, if the watering is done carelessly. A little powdered charcoal or lime will stop it if applied in the early stages. When arranging the Auriculas in the frames, the alpines should be placed in one batch and the shows in another, as this method enables the grower to ventilate to suit each kind. Throughout the summer and early autumn plenty of fresh air is necessary, and the lights can be removed on all favourable occasions. The show varieties are more or less covered with a white meal or farina, therefore it is not advisable to expose the plants to heavy rains; but with alpines it is different, as light showers are more beneficial than otherwise. The collection ought to be gone over at intervals and each plant examined. It can then be ascertained if any plants are too wet or not thriving from some other cause.

Cleanliness.—It has been stated before that this is a most important point in the cultivation of Auriculas, and it is often overlooked by the beginner, except when his plants are flowering. Whenever green fly is noticed, the frames must be vaporized at once, and care should be taken that all the woolly aphid is destroyed

around the collars of the plants. One year I was troubled with a caterpillar similar to that found on the Cabbage tribe, and several plants were badly disfigured before this destructive pest was discovered. It is usually found on the under sides of the leaves, and may be picked off if only a few are present; but, personally, I give the frames a light fumigating, then none is missed.

Suggested Additions.—It is not always possible for amateurs to visit shows or trade collections, therefore this short list of names may be helpful to some: Alpines.—Admiration, Dazzle, Ettrick, Majestic, Prince of Tyre, Phyllis Douglas, Miss Berkeley, Blue Bell, Teviotdale and Golden Dustman. Show.—Daffodil, Harrison Weir, Mikado, Acme, Heather Bell, Marmion, Prince Charming and Mrs. Henwood. T. W. B.

THE TREATMENT OF GENTIANA ACAULIS.

THIS delightful Gentian is rather variable in its behaviour, for in some gardens it flourishes, while in others it fails to thrive. As it is particularly successful here, my method of culture may be of interest. It delights in full sunshine and a moist, loamy soil, and if it can be given a position that is free from excessive moisture in the winter and yet can be kept moist at the roots in the

as soon as it is dry enough, to give it a good treading. A top-dressing after flowering is always followed by good results, and at this season of the year a layer of granite chips placed around the plants will do much to preserve moisture at the roots. Transplanting may be carried out successfully immediately after flowering or early in September, but the former time is preferable. Satisfactory results are obtained by dividing the roots at either period; but the practice of reducing the plants to single crowns does not find favour, as better results are obtained by planting fair-sized specimens.

Gloucester.

J. GARDNER

GARDENS OF TO-DAY.

WOODSIDE, CHENIES, BUCKS.

ALTHOUGH the gardens at Woodside, the country residence of Adeline Duchess of Bedford, are not of a very extensive character, it would be difficult to find a more pleasing and interesting spot during the spring months. Situated at the foot of a rather steep slope, with the river Chess running through the whole length of the grounds, the best possible use of the space has been made.



AURICULA GOLDEN QUEEN AND MYOSOTIS ROYAL BLUE, A DELIGHTFUL COLOUR COMBINATION IN ADELINE DUCHESS OF BEDFORD'S GARDENS.

summer, there will be little difficulty in growing it well. Light, sandy soil is unsuitable, but good loam with a little leaf-soil and mortar rubble added suits it admirably. Plant very firmly and give water at the roots in dry weather, also damp the plants overhead after hot days. Under these conditions it makes healthy growth and produces numerous flower-heads. If the ground becomes loosened by frost in the winter, it is advisable,

What most of all surprises the visitor is the beautiful effect which has been obtained in a comparatively short period. It was only in 1912 that Mr. J. Dickson, the head-gardener, undertook the work of forming the banks of the river into long stretches of rock garden, yet at the present time they are clothed with such a profusion of flowers that one might be reasonably pardoned for thinking that they have been in

existence for ten or fifteen years. In designing this rocky bank, Mr. Dickson very wisely devised a grass pathway between the upper portion and that next to the water, so that a border of about four feet in width runs along by the river's margin. Naturally, this provides splendid scope for growing

erect flowers being produced freely on sturdy, tufted plants. The colour is particularly good, and this plant should have a brilliant future in store for it.

Close by is a rock and water garden constructed as recently as 1913, yet it is now covered with a

will be obtained. Daffodils are naturalised by the thousand in the grass, and we were very pleased to notice a number of plants of *Fritillaria Meleagris*, with their curiously chequered, nodding flowers.

The whole of these gardens owe not a little of their charm to the great personal interest taken by Adeline Duchess of Bedford, who has an intimate knowledge of all flowers, and especially alpine and hardy herbaceous plants.



A PORTION OF THE ROCK AND WATER GARDEN CONSTRUCTED DURING 1913.

moisture-loving plants, such as Japanese Irises, *Lythrum*s, *Primulas* and many kinds of *Day Lilies*, the latter appearing to thrive either in dry or moist situations, although doubtless the best effects are obtained where the soil is cool and damp. On the upper portion of the bank, limestone boulders of many sizes have been cleverly arranged to form pockets and cavities for numerous choice rock plants. We do not ever remember seeing *Saxifrage*s, especially those of the *Encrusted* section, doing better than they are here, large tufts, some of them 18 inches or more in diameter, showing excellent promise of a rich floral display a little later.

At the time of our visit the charming *Arabis aubrietoides* was flowering profusely, large tufts, 2 feet or more in diameter, being studded with the rose pink flowers. We were also particularly interested in a very fine group of *Auricula Golden Queen* grouped behind a little collection of *Myosotis Royal Blue*, a *Forget-me-not* which abounds by the thousand in these gardens, and which, we believe, originated here. The combination of the pale yellow flowers of the *Auricula* with the brilliant blue of the *Forget-me-not* was particularly good. Such *Aubrietias* as *Mrs. Lloyd Edwards*, *Lavender*, *The Gem*, *Fire King*, *Bridesmaid* (with flowers of the palest rose) and *Dr. Mules* were making vivid shades of colour; while *Daphne Cneorum*, *Viola gracilis* and *V. Chenies Blue* all added interest and beauty to this feature of the grounds. The last-named *Viola*, which was raised by Mr. Dickson, is one of the richest blues we have seen, the large, bold,

very choice and pleasing collection of well-grown plants, seedling *Saxifrage*s raised at *Chenies* abounding everywhere. Mr. Dickson has for many years devoted his abilities to the raising of choice plants, and we do not ever remember seeing a better collection of *Polyanthuses* than he has. They are really a wonderful lot, some of the deep orange yellow shades being quite unique.

In obtaining these colours, the vigour of the plants, length of flower-stem and size of bloom have been retained. Another very pleasing section of these spring flowers is that of dark colours with silver lacing to the petals. Some of these are almost claret colour, others bright red, and others, again, nearly black, with almost every imaginable shade between, the dainty silver margin giving a very refined finish to the flower.

In the greenhouses we were particularly interested in a remarkably fine strain of *Primula obconica*. We have never seen flowers of deeper and richer colour than these, those of carmine hue being of exceptional merit. One most interesting plant in full flower Mr. Dickson claims to be a cross between *Primula obconica* and *P. malacoides*. Certainly the flowers have the appearance of being midway between the two, the petals being lacinated similar to those of *P. malacoides*, but the size of the flowers and the sturdiness of stem more approach those of *P. obconica*. It is an exceedingly pretty plant, and has been named *Market Pink*.

The wilder parts of the grounds have not yet been fully developed, though sufficient has been done to indicate that some very beautiful effects

and old mortar added, form a suitable soil mixture. As with all plants, thorough drainage is necessary. The bulbs ought to be arranged equidistant round the sides of the pots, with one in the centre, and covered with not less than an inch of soil.

A cold frame with a coal-ash bottom is the best place to stand the pots containing the bulbs, and watering must be done carefully until the long green leaves appear. As the days get cold and short, the plants may be taken to a greenhouse where the temperature ranges from 45° to 50° Fahr. Hard forcing with a higher temperature is one of the most prolific sources of failure in the cultivation of the *Freesia*. Frequent fumigations with nicotine to keep down green fly are most essential, as this ubiquitous pest has a partiality for the tender leaves. Owing to their slender foliage and flower-stems, *Freessias* need supports of some kind, and I know of nothing better than twigs from an old Birch broom, or Allwood's Patent Wire Support, an ingenious coil of wire that can be easily and quickly fixed to one central stake. Where flowers are required for cutting, a large number of bulbs may be grown in boxes, but these ought not to be less than 3 inches deep. The bulbs may be placed 2 inches apart.

In addition to the ordinary *Freesia refracta* and its variety *alba*, there are the beautiful golden yellow hybrid known as *F. Chapmanii* and the purple and mauve *Tubergen* hybrids, all of which are worthy of a place in every conservatory in the country.

FREESIAS FOR CHRISTMAS.

ALTHOUGH the festive season is still a long way off, there is no time to lose if flowers of the fragrant *Freesia* are to be available then. It is strange that the *Freesia*, which is a universal favourite, is so seldom grown in large quantities. The bulbs are cheap and the cultivation simple, while the flowers are much more highly prized than the earliest *Daffodils* and *Hyacinths*. There is no better time for potting *Freesia* bulbs than the end of June or early July, and for early flowers only the largest and most solid should be selected. Pots 5 inches or 6 inches in diameter are the most useful, these taking respectively six and ten large-sized bulbs. Rather light, turfy loam, flaky leaf-soil and old, dried cow manure, with a dash of coarse sand

SEASONABLE NOTES ON CHRYSANTHEMUMS.

THE heavy rains of May have been very beneficial to these plants, washing the foliage cleaner than any hand syringing would, and also freeing the tender shoots from green fly. Since these rains came, the young shoots, resultant from stopping by hand or natural breaks caused by the formation of buds, have made splendid progress, and this should be maintained by careful watering and syringing when the weather is suitable.

Plants in Rows.—When arranged in rows, the pots containing the tallest plants should be quite 2 feet apart. If grown for exhibition purposes and three branches are allowed for each plant, counting in the space occupied by the leaves on those branches, there will not be much open space left for air to pass through. The dwarf-growing plants may be placed 18 inches apart, not nearer; and if there is ample room, I would allow 2 feet in their case also.

Staking.—In every instance when engaged in putting the tall stakes to the plants, insert them on the north side. If already inserted when the plants are being arranged in the rows, it is a very

easy matter to turn the pot round so that the stake will be on the north side. This is, at first thought, a very unimportant item in the general management; but the stake used, often thicker than the stem of the plant, would permanently shade the latter from the sun's rays, a really important matter, especially in cool summers and when there is not an average amount of sunshine.

Side Stakes.—To each plant grown for the production of three or four blooms, a like number of stakes are used by many cultivators; but in the case of amateurs in town and suburban districts, stakes are not easily procured, except Bamboo canes, which are expensive, but desirable where money is not an object. Only in dealing with plants growing more than 4 feet 6 inches high should more stakes than the central one be used. The majority of the dwarf varieties possess strong, sturdy shoots which are very short-jointed when well grown. The side branches of these may be looped with broad strands of raffia to the central or only stake used. Do not tie nearer than 6 inches to the top of the shoot; then there will not be much danger of loss from breakages.

Plants for Lifting.—Early, medium early and late varieties may be planted in prepared ground for lifting and potting in due course. The early flowering ones will be nicely established in the

borders, but the late flowering varieties, of which I may name that grand white Mme. R. Oberthur and others desired for December and Christmas supplies of blossom, and propagated in March, will now be in good condition. Sturdiness and a bushy growth are two desirable features, and, to obtain them, rather severe cutting back must be the rule, especially in the case of Mme. R. Oberthur. This variety assumes a straggling habit if not cut low down in its early stages. When plants are lifted from the open borders to be placed in pots, it is desirable that they possess plenty of small or fibrous roots as close to the main stem as can be secured. To this end the cultivator must mix with the ordinary border soil some good loam, leaf-soil, rotted manure and road grit, if the latter is obtainable. A bushel of this mixture will be sufficient for nine plants. It must not be scattered broadcast, but locally, in the rows marked for the plants. Place stakes early for the support of the plants, as if they once fall apart the branches will not be easily rearranged.

Old Plants in Borders.—These are retained in many gardens undisturbed for a number of years, and bear, as a rule, many but rather small flowers, which are useful for border embellishment and in a cut state for vases. At the present time the clumps can be much improved by thinning out the weakly shoots, watering in dry weather and feeding liberally afterwards. . . . AVON.



THE ROCK-GARDEN BANK AT WOODSIDE. THIS WAS MADE AS RECENTLY AS 1912.

ROSE-GROWING IN TOWN GARDENS.

THE town gardener is now at his busiest time, and it is difficult for him to keep pace with the work entailed by his Roses alone. The remainder of the garden may be calling for attention, and there are doubtless many other additional demands upon his time (especially if he has become a Special Constable), but the Roses will brook no delay. If the work is systematised, much may be done at odd moments. Perhaps half an hour can be spared before breakfast; but if this is devoted only to a haphazard overlooking of the trees, it is not likely to be of much benefit, whereas if the beds are divided into sections and each of these is examined in turn, the result will be a decided lessening of the maggot and aphid tribes. Ruined foliage is always unsightly, and no pains should be spared to catch the insects before they have had an opportunity of doing much damage.

Almost as important as pruning is the removal of the superfluous "eyes" and shoots. As far as possible these should be taken out in their earliest stages with the point of a knife, but it is sometimes difficult at that time to discern all that need removing or to judge which are best left. Weak shoots in proximity to stronger ones should always be taken out, and it is, of course, unwise to allow several growths to come close together. Vigorous plants throw three growths from many of their "eyes," and of these the centre one only should be retained, though, since the others will remain almost dormant for a while and an accident may happen, it is not advisable to hurry the removal of the other two.

In the process indicated the chief thing to bear in mind is the future shape of the tree, and if the grower will picture to himself the effect of a few weeks of active growth upon the "eyes," he will have little difficulty in knowing which he can best do without. Shoots which are growing inwards towards the centre of the plant can be dispensed with far better than those which are pointing the opposite way.

There are also a number of growths which, for one reason or another, "go blind"—that is, they produce no buds. These should be cut out as soon as the fault is detected, and this will help to concentrate the energy of the plant upon those which will produce flowers. This limitation of the number of shoots goes a long way towards correcting errors in pruning, and if carried out judiciously it adds materially to the quality of the blooms, besides lessening the labour of keeping the trees clean, for the weak shoots which are removed are those which would be most infested by aphid and fungus.

Very vigorous Roses which have not been pruned hard should now be examined to see if they are breaking freely from the lower "eyes" as well as the topmost ones. Some kinds will do so naturally; others, like Frau Karl Druschki, need a certain amount of coaxing. Bending the shoots over and tying them to a stake in the ground will usually have the effect of starting the lower growths going; and in the case of semi-climbers, such as Hugh Dickson or J. B. Clark, this should always be done. After they have been tied down for a week or two, these growths can be released if it is desired to have them in an upright position.

P. L. GODDARD.

THE TREE HEATHS.

ALTHOUGH the title of Tree Heath is applied indiscriminately to a number of the more vigorous kinds, it is perhaps only strictly applicable to one species, *Erica arborea*, and even in this case the plant forms a large bush rather than a tree, the thick, woody branches probably accounting for the prefix. As, however, the tall-growing kinds form a group quite distinct from other hardy sorts typified by the common Heather and the Cornish Heath, they may well be taken together, especially as all respond to the same treatment.

They are natives of Southern Europe, and are not above reproach as regards hardiness, though there are many parts of the country where they thrive excellently, and even in colder places frosts severe enough to injure them severely are only experienced now and then. Moreover, it is always possible on the approach of frost to scatter dry leaves about the lower parts of the plants and intermix a few dry Aster tops or a little Bracken with the branches, which will prove a great protection. As is the case with other ericaceous plants, they give the best results when planted in light loam free from lime, or in peaty soil. When soil is made up for Heaths, it is a mistake to introduce a lot of peat; rather allow the bulk of the material to be sweet, sandy loam and fork a little peat into the upper part. Propagation is easily effected during July and August by means of short cuttings of young shoots dibbled into pots of sandy peat and placed in a close frame until rooted. For the first two years of their lives it is advisable to remove the points of the shoots occasionally, to induce a bushy habit. In after-life no regular pruning is needed.

The Tree Heaths may be put to a variety of uses, but they are seen to the best advantage when arranged in groups of considerable size, preferably beneath a scattering of mature Scots Pines, the golden trunks of which harmonise well with the undergrowth. Then, by a judicious mingling of groups of various kinds, the area may be made to present an irregular surface, some sorts being several feet taller than others, thus exhibiting the flowers to better advantage than would be the case were the same area planted with one sort. When naturally undulating ground can be planted, the effect is even more pleasing, the undulations accounting for different height levels among the heads of the bushes. The following species fall naturally into the group under notice:

***Erica arborea*.**—One of the commonest Heaths of the Mediterranean region, and interesting from the fact that it is chiefly from the large, woody nodules which are formed on its roots that the popular Briar-root pipes are made; not from the roots of a Rose, as some people imagine. In its native habitat it attains a height of 18 feet or 20 feet, but is usually below 10 feet high in this country, though an example nearly eighteen feet high existed a year or two ago in the gardens of Tresco Abbey. The leaves are dark green and the flowers white. The latter commence to open in February, and are at their best between March and May. During that period the leaves are almost hidden by the flowers, which, in addition to being very attractive, are delightfully fragrant. A variety called *alpina* is of more plumose habit, with somewhat brighter leaves. It is rather hardier than the type.

E. australis is a loose-habited bush from Spain and Portugal. It usually grows from 4 feet to 6 feet high, with a few branches clothed from base to summit with secondary shoots, which blossom freely from March to May. The flowers are larger than those of the other Tree Heaths, and are bright red in colour. Curiously, although other kinds thicken up quickly by repeatedly pruning the young branches, this one never appears to form a dense bush. It is not a disadvantage for it makes a change among other kinds.

E. lusitanica is often called *E. codonodes*, especially in the South-West, while it is also known as the Portuguese Heath. It is a native of Spain and Portugal, and is a common plant in gardens in the South of England, where it is found as a bush 4 feet to 10 feet high, with elegant, plumose branches clothed with bright green leaves. The flowers usually commence opening in November or December, and are at their best during February and March, but often last until May. They are longer than those of *E. arborea*, and are scentless. A pretty effect is produced by the mixture of unopen buds and expanded flowers, the former being pink and the latter white. Good-sized branches are excellent for cutting for house decoration.

E. mediterranea is a common and fairly hardy species which may be met with between 4 feet and 12 feet in height, the latter proportions rarely being attained in this country. Its branches freely and covers a considerable area of ground. The pinkish or reddish purple flowers are borne from March to May. There are several varieties, such as *alba*, with white flowers; *nana*, of dwarf habit; and *hibernica*, a glaucous-leaved form which is found wild in Ireland. The low-growing hybrid between this species and the alpine *E. carnea* has the longest flowering period of all hardy shrubs, for it may be found in bloom from October to May, and for four months it is in full blossom.

E. scoparia, a tall, upright-growing kind from Southern Europe, is distinct, but of no horticultural value, for its flowers are not showy. It is possible that some of the root nodules used for pipes may come from this species.

E. stricta is a pink-flowered species growing from 3 feet to 5 feet high. It is of stiff, upright habit, and blooms during July and August. As far north as Derbyshire it can be grown at an altitude of 1,100 feet.

E. Veitchii is a free-flowering hybrid between *E. arborea* and *E. lusitanica*. The flowers are white and the plant intermediate between the parents. It has been found useful for growing in tubs and pots for greenhouse decoration in the winter.

D.

TREATMENT OF SHRUBS AFTER FORCING.

AFTER flowering, Lilacs should be pruned into shape, and planted out as soon as possible. If allowed to remain a season without being forced, good plants will be available the second year. If any seed-pods of *Azalea indica* remain on forced plants, these should be removed with as little delay as possible. All necessary potting may be done now, and the plants placed in a temperature of 66°. Keep the syringe frequently at work among them in order to keep thrip in check. Deciduous Azaleas which were potted previous to forcing will not require potting now, but should be encouraged to make fresh growth, and may eventually be plunged in ashes in the open.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Late Vines.—As soon as the bunches have set, no time should be lost in removing the surplus bunches. Carefully tie down the shoots to the trellis and remove all superfluous growth. Commence thinning the berries as soon as possible, as they swell very quickly at this time of the year. Thin first those varieties which set their berries thickly. The borders should now be in need of a thorough soaking with diluted liquid manure. To encourage roots to the surface of the border, an occasional light sprinkling with Le Fruitier or some other suitable fertiliser may be given. Use artificial heat as sparingly as possible, and damp the bare surfaces in the house frequently during hot weather.

The Orchard-House.—Fruit trees growing in pots must be frequently examined at this time of the year to see if they need water, as any neglect in this important matter will have a detrimental effect on the quality of the fruits. Plenty of stimulants may now be safely given, as the pots will be full of roots. The fruits can be finally thinned when the stoning stage has passed. If fruits of good quality are desired, the trees must not be overcropped. Stop all lateral growths at the fourth or fifth leaf, and remove others freely where the trees are becoming too dense. Syringe the foliage vigorously twice daily, and, to keep the trees free from aphids, fumigate occasionally with a nicotine compound.

Plants Under Glass.

Bouvardias.—If very large plants are desired, they should now be planted out on a well-prepared border. Put the plants out about eighteen inches apart, and if the weather is hot at the time of planting, shade them during the hottest part of the day. During the earlier stages of growth the shoots must be pinched to encourage a bushy habit. Plants in pots should be plunged in ashes in cold frames.

Climbing Roses.—Timely attention to the thinning of the young growths will save much time later on, as the young shoots quickly grow into an entangled mass. Give the plants plenty of stimulants, and, if not already done, mulch the roots with manure.

Caladiums.—Give plenty of stimulants to plants which are well rooted, or they will quickly lose their decorative value. Some of the large-leaved kinds must be supported by neat stakes. Do not expose them to the sun during the hottest part of the day, as the leaves are liable to scorch.

Primulas.—The earliest plants may now be placed in cold frames, plunging the pots in ashes. Recently potted plants will need very careful watering till they have again become well rooted.

Cannas.—These may be repotted if necessary. The Canna is a gross-feeding subject, and requires very liberal treatment as to soil. When well rooted, plenty of stimulants are necessary to develop the flowers perfectly.

The Flower Garden.

Roses.—Where time permits, it is a considerable benefit to the plants to remove the weak, useless shoots. In the event of a dry summer, the beds should be mulched with some suitable material. Syringe the plants at least once a week with an insecticide to keep down aphids and mildew.

Herbaceous Borders.—Pay timely attention to the staking of the plants and thin severely those which are too thick, for the true character of many of the species may be spoilt if they are overcrowded with growth.

Watering.—Most of the strong-growing herbaceous plants need abundance of water; therefore, in the event of a continued spell of drought, watering must be attended to. A sprinkling of soot between the plants prior to watering will be of great benefit. The hoe should be freely used between the plants. Recently planted trees and shrubs must be watered if necessary.

The Rock Garden.—In very dry weather the plants ought to be liberally soaked with water. In some cases it will be found that the roots have become exposed by constant watering. In this case a little fresh soil should be added. The

growth of many of the strong-growing plants must be restricted, or they will injure those of less vigour.

The Hardy Fruit Garden.

Morello Cherries.—It is very important that Cherry trees should be kept free from aphids, as this pest does a great deal of damage, not only to the young growth, but also to the fruits. Regular spraying with an insecticide is the best way to deal with it. This work should be done late in the afternoon. The trees ought also to be well washed with the garden hose. The young growth must now be finally thinned or stopped.

Sweet Cherries.—Netting must be fixed over the trees to protect the fruits from birds, which often commence their attacks before the fruits are ripe. Stop all the surplus growth and lay in the leaders. Give the trees plenty of water at the roots.

The Kitchen Garden.

Chicory.—Seeds of this valuable winter salad may be sown now. Sow in drills about a foot apart. Should the ground be dry, water the drills before sowing the seeds. When the young plants are large enough, thin them to 9 inches apart.

Ridge Cucumbers.—These may now be planted out. They can either be planted on mounds of soil on a hot-bed, or a ridge of soil may be placed along the hot-bed, planting them about three feet apart. Encourage free growth by sprinkling the plants twice daily during hot weather.

Climbing French Beans.—These will be found of great value where large supplies of vegetables are in constant demand. The seeds may be sown in rows and grown much in the same manner as Scarlet Runners.

Onions.—Those which were planted from boxes or pots must be liberally supplied with water, and during fine, dry weather the hoe should be kept going between the plants. Autumn-sown Onions must be fed liberally with manures, so that the crop may be fit for use as early as possible.

Lettuce.—Make frequent small sowings of Lettuce and prick out the young plants when large enough. Afford them plenty of water and hoe frequently between the rows.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

Fruit Under Glass.

Early Vinery.—As the Grapes are now colouring nicely, less moisture in the atmosphere must exist and the ventilators be used more freely. Air should be allowed a free circulation from both top and bottom ventilators during the night-time as well. The variety Madresfield Court is very subject to cracking some of its best berries at this period, and one of the best recognised cures is to discontinue the pinching or stopping of all laterals until the fruit is ripe.

Successional Vines.—The thinning of Grapes having now been completed, the borders, especially indoor ones, will require occasional supplies of water. This should always be accompanied by liquid obtained from either cow or sheep manure. Failing this, some rich manure, such as guano, should be mixed with the water. If liquid or manure from a stable is used, care ought to be taken to leave the top ventilators open slightly to allow the ammonia fumes to escape and so avoid injuring the foliage.

The Hardy Fruit Garden.

Strawberries.—Should very dry weather prevail while the fruit is swelling, water must be given if large fruit in quantity is desired. Where portable frames and lights are available, with their aid the ripening of a few fruits can be hastened by a few days if necessary.

Orchard Trees.—The hoe should be used freely, not so much to keep down weeds, but to try to conserve as much of the moisture in the soil as possible. Grafted trees ought to be examined occasionally to see that the wrappings and ties are intact and not exposed to the air.

The Kitchen Garden.

Cauliflower.—More seedlings will be ready for planting, and these ought to be set out at a slightly greater distance apart than the early crop. After planting, dust around with soot to check slugs.

Peas.—This popular vegetable succeeds best during a warm and moist season; but if the ground was well prepared beforehand, the crop is not so likely to be affected by the weather conditions. Mildew is often troublesome, and spreads at an alarming rate. If possible, this crop should be grown in different parts of the garden for this reason. During very dry weather, when time can be spared, watering is of great assistance in adding to the length and productiveness of the crop.

French Beans.—Seed sown now will keep up the supply during August and well into September. As soon as the plants appear above the ground, dust with soot or gritty sand to keep away slugs.

Winter Greens and Savoys.—Another sowing might still be made to supply plants for filling up ground which will have been cleared of Potatoes or perhaps Strawberries by the first or second week in August.

Jerusalem Artichokes can be earthed up in a similar way to Potatoes. As growth proceeds, hoeing will not be needed much longer to keep down weeds, as the foliage is sufficient to smother all other vegetation growing underneath.

The Flower Garden.

Bedding Out being a very large undertaking in some establishments, routine and other important work has to remain untouched until this is completed. If most of the other operations were got well in hand previous to the bedding out, the task of catching up will not be so great. The advantage will be here seen of using a number of more hardy plants, which can be put out earlier in the season, and so avoiding a rush at this time.

Spring Bedding Plants will still be flowering freely, and cannot be disturbed yet. Especially is this the case where Darwin and May-flowering Tulips form part of the scheme. These must first be allowed to partially mature their young bulbs before being lifted temporarily, and this will not be for a few days yet. Alyssum, Aubrietia and other plants which will be required again in the autumn should be cut over and carefully laid in a vacant spot.

Clematises.—These climbing plants require occasional attention to keep them tidy, as they grow very quickly at this season, and, if not attended to in time, are apt to grow into an entangled mass, which it is almost impossible to tie up and regulate later on, besides giving the plants a bundled up and unnatural appearance.

Reserve Garden.—Where accommodation will permit, a surplus from the bedding out plants can be grown apart from the flower garden. This, in the case of such plants as Geraniums, would prevent stripping the plants which are flowering during August and September, when propagation-time arrives again. Varieties of Pentstemons which are scarce could also be planted here and given an occasional topping to produce a larger number of growths for cuttings.

Plants Under Glass.

Tree Carnations.—The final potting must soon be completed for plants which are expected to commence flowering in October, a time when a good supply of blooms is usually in great demand and when outdoor flowers for cutting get scarce and of poor quality. For most growers' purposes 6-inch and 7-inch pots are the general sizes used for the final potting; but for very late-struck plants 5-inch and 5½-inch pots will be large enough. The compost should contain plenty of crushed brick and charcoal, clean leaf-soil and fine oyster-shell. This latter ingredient is much better than the lime rubble so often advocated for these plants. The loam used must contain a large proportion of fibre. Silver sand, soot and some Carnation manure should also be included. Where the roots have matted around the crocks, it is best not to disturb them at all. Fly and thrip usually make their appearance at this season, so an occasional fumigation must be given.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

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Offices: 20, Tavistock Street, Covent Garden, W.C.

ANSWERS
TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

PLANTING FORCED DAFFODILS IN GRASS (R. F. C.).

—If convenient, it would be best to plant the bulbs at once, though they will do quite well planted in October. If they were forced very hard, we would prefer planting them, for one year at least, in a bed in the kitchen garden before putting them in the grass.

PLANTING COLCHICUMS (E. S.).—These plants will soon be maturing their growth, and if you can obtain them, you might plant without further delay. Usually the bulbs are not available until July or later, though an early application for them might assist you. Keep the bulbs 3 inches or 4 inches under the soil when planting.

WATER GARDEN (Mrs. M.).—If tubs of moderate size would do, ordinary paraffin casks, cut in halves, might supply the want. These would have to be fired to rid them of the oil, and might also be lightly charred externally for the same purpose before applying a coating of pitch or tar as a preservative. If larger receptacles are required, probably a brewer near you could let you have all you wanted. The only way to make a rock garden pool water-tight is with cement and ballast. First fix the size of the pool, and beyond this a 6-inch bottom of cement concrete and 4-inch thick sides. If the concrete is gauged up to four and one, i.e., four parts clean gravel to one part cement, that will be strong enough. When the side walls and bottom are moderately dry, all inner surfaces should be coated with sand and cement at two and one strength, which, if properly done, will hold water quite well. An overflow hole should be arranged, as it is necessary occasionally to overflow it for cleansing and changing the water. The pond may be of any size or form, though one of bath-like form at sides and bottom is that most easily rendered water-tight. The depth will be in proportion to the plants you wish to grow, though not less than 2 feet of water is advised.

IRIS GERMANICA FAILING (M. M. K. C.).—From the statement of your letter alone we should conclude that the excessively heavy nature of the clay soil and the winter flooding are the chief causes of the failure, though the "brown" to which you refer may be either the outcome of a fungoid attack or the collapse of the sectional portion to which it is attached. In all the circumstances, it would have been better had you sent a clump for our inspection. These plants succeed best in light loamy, gravelly and sandy soils, and in such grow and flourish in almost any position. Flooding and much winter wet in heavy soils is abhorrent to them. A contributory cause of failure is deep planting, particularly of the rhizomes, and if these are buried 2 inches, the flooding would in all probability cause the new growth to decay. Try them in a much lighter bed of sandy soil raised above that they now occupy, replanting them at once in single pieces—not in clumps—and employing only the healthy bits. Is the soil free of wireworm? No insect pest of the garden is more destructive to the Iris than this.

For the shady border the above applies with equal force, the failure of the plants here also indicating uncongenial soil conditions. Other good plants for shade would be Ferns, Bluebells, Madonna and other Lilies, and Daffodils. The best time to deal with the mixed Irises is when they are in flower. At no other time could they be properly "rogued."

TREES AND SHRUBS.

SHRUB FOR NAMING (K. A. K.).—The flowering shoot you send is that of the Mexican Orange, *Choisya ternata*. This is an evergreen shrub that attains a height of 15 feet, or sometimes even more. Though hardy in the London district, it sometimes gets injured by comparatively light frosts during the early spring. For that reason it ought to be given a rather sheltered, though open position. It appreciates rather light, well-drained, but at the same time well-enriched soil, and may be planted either at the middle of October or during March.

SELF-CLINGING CLIMBER (Climber).—There are very few self-clinging hardy climbers, and none with fragrant flowers. The best self-clinging flowering climber is *Hydrangea petiolaris*, and probably the best of all fragrant-flowered climbers for your purpose is *Wistaria chinensis*. This must, however, be nailed to its support. If the main branches are secured in position, it is possible to do with very little nailing, for the side branches can be cut back each year to form spur-like growths. Flowers are usually produced more freely from stunted, spur-like growths than from very rampant branches. We do not know a plant under the name of Cinnamon Vine. If you can obtain a specimen, we shall be pleased to undertake its identification and advise you regarding it.

THE GREENHOUSE.

CHRYSANTHEMUM SECTIONS AND TREATMENT (C. G. A.).—Of the list you send, the following varieties are Japanese: Mrs. Greenfield, Leigh Park Rival, Niveus, White Australie, Mafeking Hero, Souvenir de Petite Amie and Mrs. J. Dunn. Major Bonaffon is an incurved variety. (2) "Chrysanthemums for Garden and Greenhouse," by D. B. Crane; published at 2s. 6d. by W. H. and L. Collingridge, 148 and 149, Aldersgate Street, London, E.C. (3) Yes; you have not done wrong. Allow the plants to grow on from this point, and do not stop them again.

ADVICE ON ORCHIDS (L. G. W.).—The reason of your non-success in flowering the *Dendrobiums* referred to is probably owing to the fact that they were not encouraged to grow freely after the last flowering season, and also that the growths were insufficiently ripened. The different species of *Dendrobium* referred to by you bloom naturally in the winter and spring. When the blooms are past, the plants may be repotted, or top-dressed as they require it. At all events, we advise you to repot yours at once. In the first place, the Ferns that you speak of as growing in the pots should be pulled out, as every living bit of Fern draws nourishment that should go to the Orchids. As so much success has attended your single specimen in a basket, would it not be as well to treat them all in this way? The baskets selected for the purpose should be comparatively small and shallow, and be drained by means of two or three large pieces of broken crocks. A suitable compost for *Dendrobiums* may be made up of three parts of fibrous peat or *Osmunda* fibre and one-third chopped sphagnum moss, with a few small nodules of charcoal mixed therewith. This must be worked firmly around the roots so as to hold the plant firmly in position, care being taken not to bury the eyes at the base of the stems too deeply, otherwise they will damp off. If pots instead of baskets are used, much the same procedure must be followed, except that the pots should be half filled with broken crocks. When potted, the plants must be kept in a fairly warm, moist atmosphere in order to encourage growth. At the time, if the roots are active, a liberal quantity of water will be required, with an occasional syringing in hot weather. When growing, the plants need to be partially shaded from the sun's rays. As growth is completed, say, by the time summer quarters where they can have more air and sunshine. This will lead to a thorough ripening of the pseudo-bulbs, so necessary to their successful flowering. At that stage the soil will only need to be kept slightly moist. Before the winter the plants may be taken back into the warmer structure, taking great care not to overwater them. As the buds show, more moisture can be given, for the blossoms then develop rapidly. *Vanda kimballiana* will do well except that it does not need to be ripened off at any time. It flowers in the autumn. *Vanda cerulea* may have been rare where your brother obtained his *Dendrobiums*, but it is very common in cultivation, and can be purchased cheaply in this country.

FRUIT GARDEN.

GOOSEBERRIES FOR INSPECTION (I. R.).—The Gooseberries appear to be attacked by the fungus *Botrytis cinerea*, which is producing the disease called die-back. All the diseased parts should be cut away and burned, and the bushes sprayed with Bordeaux mixture as soon as the fruit has been gathered.

GOOSEBERRIES FAILING TO SWELL (J. J. E.).—There are many failures with Gooseberries this year, and in most cases it is due to frost, especially in low-lying situations, where the "air drainage" is bad. Sparrows have also been the cause of loss of crop; they have eaten the tips of the flowers just as they were setting.

MISCELLANEOUS.

HOW TO ERADICATE CELANDINE (Mrs. C.).—The best way to eradicate the Lesser Celandine (*Ranunculus Ficaria*) from ground is to fork it up and carefully pick out the tuber-like roots. This will doubtless be necessary over two or three years, for seedlings are bound to appear from time to time. Some good can be done by continually hoeing it down as soon as the leaves appear above the ground, but such work must be persisted in for some considerable time. It is possible that Mr. L. R. Russell, nurseryman, Sheen Road, Richmond, Surrey, could supply the double-flowered Blackthorn.

STIGMA OF A FLOWER (E. H. W.).—The length of time the stigma of a flower remains receptive varies very much according to the species (or even the variety), the temperature, and whether it has been pollinated or not. If an Apple stigma is receptive for 2 days (generally about two or three days in fine weather) and it rains continuously, there is still a chance of the flower being fertilised. The damage done by rain is mainly to the pollen, and if the air about the stamens were dry enough, some pollen might be shed, and that already shed would tend to be distributed by the battering of the rain drops. In the case of the Apple, the probability of fruit being produced would again depend upon whether the variety was a self-fertile or a self-sterile one.

NAMES OF PLANTS.—*Alpha*.—*Luzula sylvatica*.—*Mrs. W.*—*Claytonia alsinoides*.—*W. H. S.*—1, *Lithospermum prostratum*; 2, *Acer palmatum atropurpureum*; 3, *Thuja dolabrata variegata*; 4, *Cupressus obtusangula*; 5, *C. lawsoniana*; 6, *C. nootkatensis*; 7, *Alnus glutinosus*; 8, *Begonia metallica*; 9, *Sedum Sieboldi*.—*Cornish Gardener*.—*Rhamnus cathartica*.—*E. B.*—*Billbergia nutans*; this is a Bromeliaceous flower, sepals reddish, petals yellowish green, both with a blue margin.—*T. C. C.*—1, *Viburnum lantana*; 2, *Pyrus Aria*; 3, *Viburnum Tinus*; 4, *Pyrus Malus* variety.—*B. Cummings*.—The plant is *Fuchsia procumbens*. It is a native of New Zealand and has magenta crimson berries later in the year. It is most likely birds that pull up your Houseleeks, in their search for snails.

SOCIETIES.

BRIGHTON, HOVE AND SUSSEX HORTICULTURAL SOCIETY.

"THE WONDERS OF FERNLAND."

On Thursday, the 20th ult., at the Assembly Room, Oddfellows' Hall, Brighton, a very interesting lecture under the above title and illustrated by a large number of lantern slides was delivered by the well-known authority on British Ferns, Mr. Charles T. Drury, V.M.H., F.L.S., to an appreciative audience.

The first and main wonder was, in the opinion of the lecturer, that while Nature in Great Britain, with only a few native species, some forty odd, had far and away eclipsed the multitude of exotic Ferns in the diversity and beauty of the plants which she had, so to speak, invented, it was only a comparative few among plant-lovers who profited by these gifts or, indeed, knew that they existed. It was, therefore, his object to demonstrate to those present by actual photographs of a selected few of these varieties how much they lost by ignoring the opportunity they afforded for both garden and home decoration. For more than half a century a coterie of British Fern-lovers had devoted their attention to the particular study of our wild Ferns, which are so plentiful in our Western Counties, it having been found that among these multitudes of the common types there existed, scattered here and there and usually solitary, individual plants which exhibited very striking differences from their companions of the same species. Some of these being discovered and cultivated, it was next found that the offspring raised from their spores usually inherited their peculiarities, but often in different degrees, so that these peculiarities could be enhanced and a beautiful plant thus increased in attractiveness. In this way in time more and more enthusiasts joined the cult, until at the present time the known fine varieties run into hundreds, and in many cases eclipse all exotics in diversity of type, there being no parallels. Over exotics, too, these Ferns, being natives, and therefore hardy, possess the advantage of the easiest possible culture under quite even conditions. The lecturer then proceeded by means of some excellent lantern slides to demonstrate the life-history of Ferns generally and the variations in such life-history that had been shown to exist, as well as that of their individual sports, and then showed a number of the most beautiful types, some found wild as shown and others improved by selection, these constituting a series of wonders well meriting the name. In the course of the lecture, the lecturer indicated that although to-day had but little value, it must not be forgotten that it is to the Ferns and their allies of the far distant Coal Age that we practically owe all our present prosperity, for all our coal is simply and solely the residue of immense forests of these plants, which, deeply buried as they now may be, grew in their day on the earth's surface, just as do the existing Fern paradises of the Antipodes or the lesser ones of our Devonian and other similar terry valleys and glens of both Great Britain and Ireland. The lecturer, as the hon. secretary of the British Pteridological Society and editor of the *British Fern Gazette*, then distributed some copies of that publication, and invited those present to become members as evidence that his words had gone home. A hearty vote of thanks was accorded the lecturer.

HORTICULTURAL TRADES' ASSOCIATION.

M. VILMORIN (of MM. Vilmorin et Cie, Paris) was the principal guest at the dinner of the Horticultural Trades' Association, held at the Hotel Windsor, on Tuesday, May 18. Mr. William Cuthbertson (Messrs. Dobbie and Co., Edinburgh) presided over a large company.

In his opening speech, the chairman said the association had sent out forms asking for particulars about the horticultural trade of the country. About half of the number replied, but, as Mr. Courtney Fowler said, the figures could not be taken as very authoritative, but in coming to their conclusions they thought they were justified in doubling the figures received. The returns showed that the area cultivated amounted to over 26,000 acres, which, doubled, gave, roughly, 50,000 acres. The area under glass was 20,000,000 square feet—doubled, 40,000,000. The number of employes doubled for the whole trade was 30,000 men; boys, 5,400; women, 3,350; girls, 1,500; giving over 40,000 employes in the whole trade of Great Britain. The wages, doubled, were nearly £2,000,000 per annum, and the capital involved was something between £8,000,000 and £9,000,000.

Mr. N. N. Sherwood proposed the health of M. Vilmorin. He said they had with them that night one of the most delightful men he had ever met in his life. The name of Vilmorin stood very, very high in the horticultural world of France. M. Vilmorin had for some months past represented the French War Minister in regard to the supplies for the troops, and that showed what the Minister for War thought of his wonderful capacity.

M. Vilmorin, in reply, said he was not prepared to speak that evening, and he must be excused if he had not had time to have a Blue Book printed. (Laughter.) He was, however, very glad to be present. The letter sent him indicating the lines on which he might speak did not reach him until that morning. He was afraid it must have been kept back by the Censor. That was awkward, because he expected money in the same letter. Turning to the state of affairs in France, M. Vilmorin said the horticultural trade had been greatly hindered by the war. It had seriously affected the exportation of flowers and food, and even the Jersey trade had been greatly affected.

Mr. Stuart Low gave the toast of "Belgium." He said the world owed a great debt to that brave little country, for, had it not been for Belgium, God alone knew where many of them would be at the present moment. (Cheers.) When no one else was ready, those brave fellows—not a military nation—stopped the invader. They had taught all a lesson they would not forget—(cheers)—and others would be very careful in again handling the hedgehog. (Laughter and cheers.) Belgium was a nation of horticulturists and the home of some of the most enthusiastic gardeners. It was up to England to see that right was done to them.

M. Verbonen replied. He said Belgium was certainly a little country—it had always been called La Petite

Belgique. The people there never believed they would have been plunged into war, especially with Germany, as they were supposed to be protected by Germany. "Of course," he said, "we could have allowed Germany to go through, but very likely we would have remained the slaves of Germany ever afterwards. For what little Belgium has done, I for my part am very proud of it. We thank England very much for all she has done. England has done magnificently. Belgians thank England for all her kind hospitality to them when they have been deprived of their homes by the cruel foe." (Cheers.)

Councillor Wallace (Colchester) proposed "The Horticultural Trades' Association." Since the war commenced, he said, they had passed through very anxious times, but they would not forget what France and Belgium had been through, and they could not be too thankful for the narrow strip of sea which divided us from the foe; nor were they likely to forget that it was entirely due to little Belgium's first step that the onrush of the enemy was stopped at the onset. (Cheers.) Their hearts were stirred by the distress which had been caused, and it was the duty of all to assist in relieving the distress. As to their own trade, they had had a fair season, far better than they could possibly have anticipated, and that bore wonderful testimony to the vitality of the trade to-day. The extraordinary rallying power of the trade was shown in the great exhibition at Chelsea.

Mr. Charles Pearson, the secretary, responded. He said he had always been a strong believer in the power of organisation. In the old days the motto—a very bad one—was "Everyone for himself and the devil take the hindmost." They had outlived that, and the people generally were beginning to see that it was not a bad thing to be altruistic.

Sir Harry Veitch proposed "The Chairman," to whom, he said, they owed so much, and he paid a glowing tribute to M. Vilmorin and his family. He alluded to the fund being raised on behalf of the sufferers in Belgium, and invited them all to contribute out of their abundance, not only financially, but with stock. They must not forget Poland and Serbia. In the latter country whole orchards had been destroyed.

The chairman, in reply, heartily thanked Sir Harry. He agreed with the Prime Minister's reply to the Archbishop that the Scriptural advice, "Let not the sun go down on your wrath," did not apply. He hoped that before another year the war clouds would have rolled away. (Cheers.)

WATFORD HORTICULTURAL SOCIETY.

The usual monthly meeting was held on Tuesday, the 11th ult., at the Lime Tree Hotel, when Mr. E. S. Theobald presided over a good attendance of members. The room presented an exceedingly bright and gay appearance with a fine collection of May-flowering and Darwin Tulips exhibited by C. H. Waterlow, Esq. (gardener, Mr. W. R. Phillips). The collection, which was admired by every-

body, was awarded a first-class certificate. The lecture was given by Mr. W. W. Phillips on "Tulips." He dealt with his subject in a masterly style, and gave many valuable hints upon the cultivation and selection of suitable bulbs for pot and bowl culture, as well as for bedding purposes. At the close of the meeting the chairman distributed the following awards in the monthly competition: For a vase of Tulips, six blooms, first-class certificates were given to C. H. Waterlow, Esq. (gardener, Mr. W. R. Phillips), Mr. S. Bird (gardener, Mr. E. Blinco) and Mr. G. B. Dodwell (gardener, Mr. G. Middleton); and a second-class certificate to Mr. F. J. McLees. For two spring Cabbage, second-class certificates were awarded to Mr. W. E. Catesby, J.P. (gardener, Mr. W. Webb) and Mr. W. Buckingam.

THE EDITOR'S TABLE.

A Beautiful Flowering Shrub from Lancashire.—Mr. F. A. Fenner, Holker Hall Gardens, Cark-in-Cartmel, Lancashire, sends a beautiful flowering branch of *Pieris formosa*. This is a native of the Himalaya, and is generally regarded as hardy only in the warm South-Western or Western Counties. The white flowers, which are produced in large clusters at the tips of the shoots, resemble in appearance those of Lily of the Valley, the glossy green foliage, which persists throughout the winter, making a charming foil for the blossoms. This is, we think, the most beautiful member of the genus, and we congratulate Mr. Fenner on growing and flowering it so well. He writes: "I am sending a flowering spray of *Pieris formosa*. There are three trees here which I think are good specimens. The height of the two largest is 19 feet 6 inches, the smaller one 18 feet. They are a delightful picture just now with their large clusters of white flowers and the red colouring of the young growths. I should be pleased to know where the largest specimens are growing in this country."

*** The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

TREE STRAWBERRY, OR STRAWBERRY-RASPBERRY.

This is one of the most unique, and at the same time the largest and most beautiful berry of any kind that has yet appeared before the public. It comes to us from Japan, and is one of the Raspberry family, though in many respects it resembles a Strawberry growing on a bush two feet high. The plant is entirely hardy in any location, and a most profuse yielder, ripening an enormous crop of fruit in July and August, and more or less all the time up to November. The berries are globular, slightly oblong in form, monstrous in size, a rich, glossy, ruby-red colour. Makes a most lovely preserve and jelly. 1/3 each; 3 for 2/6; 6 for 4/6; 12 for 7/6. Now best time to plant, fruit this season.

GLORIOUS NEW BEDDING HYBRID PENTSTEMONS.

For grand display in border, plant some of my new hybrid Pentstemons, which are now rich in variety of colour, in size almost equal to Gloxinias, and have superbly splashed and mottled throats; they are quite hardy, and bloom the whole season right up to severe frost. I have grown an extra large stock of very fine bushy plants. 6, 1/6; 12, 2/9; 25, 5/-; 50, 9/-; 100, 17/6.

THE REAL OLD-FASHIONED TRUE SPICE-SCENTED CARNATION.

Crimson Clove (deep rich glowing crimson). These are very hardy, and do well anywhere, especially in smoky town gardens, where the less robust varieties refuse to grow. These are strong plants that will be a mass of bloom this season, and warranted the true old spice-scented variety. 6 for 2/-; 12 for 3/6; 25 for 6/6.

EXTRACT FROM THE "DAILY MAIL."

In a wet season, tuberous rooted begonias make a better display than any other kind of bedding plants, as the more moisture they get the more freely do they bloom. This characteristic is so valuable in a climate like ours, that it should ensure their being used much more than they are.

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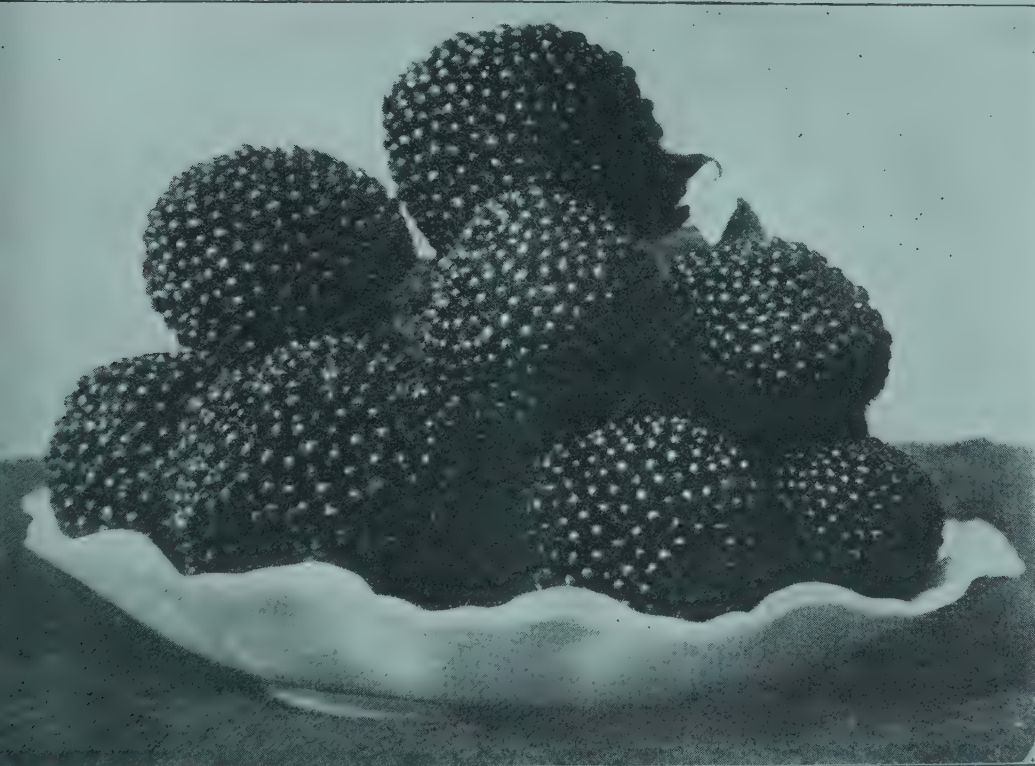


Photo. Merrett Bros., Stroud.]

TREE STRAWBERRY OR STRAWBERRY-RASPBERRY.

GIGANTIC ERECT-FLOWERING (GOLD MEDAL STRAIN) BEDDING BEGONIAS

The fashionable plant of the day, and richly does it deserve its honours, for, in addition to very handsome foliage, it bears a never-ending profusion of the most ravishingly beautiful flowers the whole summer, and then, with the coming of the cold weather, very obligingly takes a nap until spring, asking no further care through the winter than to be packed in oil away from frost. They will flourish in the cottage window, the smallest home-made greenhouse, or the most costly conservatory, and more important still, they are equally at home out-doors, and flower right into November.

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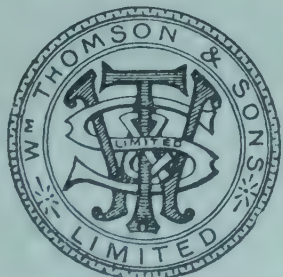


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in mixed colours ... 12 ,, 6d

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Arum Lily Maculata,
white flowers,
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Chrysanthemums,
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garden, best early,
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purple flowering
climbers ... 2 ,, 6d

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Dahlias, fine doubles 6 ,, 6d

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Geraniums, strong,
sturdy plants from
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Crampel, scarlet, 3/-
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Lobelia, best dwarf,
dark or light blue,
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new double, Mrs.
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den and large sul-
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Pentstemons, large
hardy plants from
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Scarlet Newbury
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varieties ... 6 ,, 6d

Saxifraga, Mother of
Thousands ... 3 ,, 6d

Schizanthus, butter-
fly flower ... 12 ,, 6d

Smilax, trailing or
erect ... 4 ,, 6d

Smilax, long trailing 4 ,, 6d

Spiraea florabunda,
huge white feathery
plumes ... 2 ,, 6d

Spiraea Peach Bloss-
om and Queen
Alexandra, new
lovely pink plumes 1 ,, 6d

Stocks, ten weeks,
choice large doubles 12 ,, 6d

Stocks, Beauty, new
Salmon Pink ... 9 ,, 6d

Streptocarpus veitchii
new hybrids ... 3 ,, 6d

Sweet Pea Plants,
grandest varieties 20 ,, 6d

Tuberose, large
flowering bulbs,
double white ... 2 ,, 6d

Verbenas, fine large
flowering hybrids,
Auricula-eyed,
Mammoth Perfec-
tion or Scarlet ... 9 ,, 6d

Zinnia elegans, double
giant ... 12 ,, 6d

VERY STRONG HARDY PERENNIALS, WILL FLOW THIS SEASON, REDUCED PRICE TO CLEAR.

Anemone Japonica,
white, pink, red ... 3 for 6d

Alpine Pinks, rockery
gems ... 4 ,, 6d

Aster, Michaelmas
Daisy, Ericoides
and best named ... 3 ,, 6d

Aster, Beauty of Col-
wall, new double
mauve ... 2 ,, 6d

Campanula, all varie-
ties ... 6 ,, 6d

Canterbury Bells, all
colours ... 15 ,, 6d

Carnations, good dble.
border ... 6 ,, 6d

Carnations, crimson
clove ... 2 ,, 6d

Cornflowers, blue ... 15 ,, 6d

Cornflowers, new
giant blue ... 6 ,, 6d

Creeping Jenny ... 4 ,, 6d

Dianthus, named
varieties, all colours
and double & single
mixed ... 12 ,, 6d

Evening Primrose ... 12 ,, 6d

Everlasting Pea, white,
red and pink ... 6 ,, 6d

French Marguerites,
all shades ... 4 ,, 6d

Fuchsia, hardy crim-
son, bush ... 3 ,, 6d

Funkia, all varieties 3 ,, 6d

Geum, new double
scarlet, Mrs. Brad-
shaw ... 2 ,, 6d

Geum, double scarlet
glory ... 4 ,, 6d

Geum, semi double
scarlet ... 6 ,, 6d

Gypsophila, white ... 6 ,, 6d

Heuchera, scarlet,
white or pink ... 4 ,, 6d

Hemerocallis, Day
Lily ... 3 ,, 6d

Iceland Poppies ... 6 ,, 6d

Iris, named, large
flowering, English,
Japanese, German-
ica ... 4 ,, 6d

Mint (lamb), Sage, Thyme, Marjoram ... 12 for 6d

Parsley (best curled) ... 20 ,, 6d

Pyrethrum Hybridum,
all colours ... 4 ,, 6d

Ranunculus, giant
double, all colours 12 ,, 6d

Rudbeckia Newmanii 4 ,, 6d

Scabious Caucasica,
large mauve ... 2 ,, 6d

Sedum Spectabilis,
large showy pink 3 ,, 6d

Shirley Poppies, art
shades ... 12 ,, 6d

Tritoma, red hot poker 2 ,, 6d

Violas, grand strain,
large flowering,
mixed colours ... 12 ,, 6d

Viola Cornuta, for
rockery or border,
mauve, purple, blue 9 ,, 6d

Lavender, true, frag-
rant, large bushes 3 for 6d

Liliums, hardy varie-
ties, Tigrinum,
Umbellatum, Spec-
iosum, Roseum and
Rubrum ... 4 ,, 6d

Sunflower, new red ... 2 ,, 6d

Pansies, young sturdy
plants, in bud and
bloom, first-class
magnificent varie-
ties ... 12 ,, 6d

Pansies, giant stains 15 ,, 6d

Pentstemon Bar-
batus ... 6 ,, 6d

Phlox, good varieties 4 ,, 6d

Pinks, coloured dbls. 9 ,, 6d

Pinks, double white 6 ,, 6d

Pinks, Mrs. Sinkins 4 ,, 6d

Potentilla, double 4 ,, 6d

Primulas, lovely
hardy varieties for
rockery or border,
rosy purple & yellow 4 ,, 6d

Pyrethrum Hybridum,
all colours ... 4 ,, 6d

Ranunculus, giant
double, all colours 12 ,, 6d

Rudbeckia Newmanii 4 ,, 6d

Scabious Caucasica,
large mauve ... 2 ,, 6d

Sedum Spectabilis,
large showy pink 3 ,, 6d

Shirley Poppies, art
shades ... 12 ,, 6d

Tritoma, red hot poker 2 ,, 6d

Violas, grand strain,
large flowering,
mixed colours ... 12 ,, 6d

Viola Cornuta, for
rockery or border,
mauve, purple, blue 9 ,, 6d

Violets, best giant
fragrant, blue ... 9 ,, 6d

Violets, mauve, Louise,
large double mauve 6 ,, 6d

STRONG BUSHY YOUNG HERB PLANTS.

Mint (lamb), Sage, Thyme, Marjoram ... 12 for 6d

Parsley (best curled) ... 20 ,, 6d

STRONG HARDY CLIMBERS.

Ampelopsis Veitchii, true, self-clinging, large, with several
trails, 1/- each; second size, 6d. each.

Calystegia double, Morning Glory ... 2 for 6d

Clematis, very choice large flowering, 4ft. high. See Cata-
logue, all colours and white ... each 1/3

Clematis; erecta alba, white, shrubby; Hendersoni,
violet; Integrifolia, violet; Vitalba, white;
Viticella, purple ... 1 for 6d

Hops, true Kentish, Goldings, large roots full of shoots 2 ,, 6d

Passion Flower, hardy, blue and white ... 2 ,, 6d

Tropaeolum speciosum, brilliant scarlet ... 2 ,, 6d

Tropaeolum tuberosum, true Peruvian Flame Flower 2 ,, 6d

Tuberose rooted Wistaria or violet-scented Pea
Flower, Climber ... 2 ,, 6d

Wistaria sinensis, favourite climber, blue ... 1 ,, 9d

SPRING SOWN.—BROCCOLI, Adam's Early White, Cattell's
Eclipse, Veitch's Self Protecting, Purple and White Sprouting.

BRUSSELS SPROUTS, Wroxton and Sutton's Exhibition.
CABBAGE, Daniel's Defiance, Mein's No. 1, Nonpareil.
CAULIFLOWER, Early London and Veitch's Autumn Giant.
KALE, Tall Curled, LEEK, Sutton's Prizetaker and The
Lyon. LETTUCE, Webb's Wonderful Cabbage and Paris
White Cos. SAVOY, Best of All, 9d. 100.
Celery, transplanted ready for trench, 1/6 100.

Cucumbers for house or frame. Improved Telegraph,
Veitch's Sensation, Sutton's A1 ... 1 for 6d

Cucumbers, Bedfordshire Prize Ridge ... 6 ,, 6d

Tomato, Carter's Sunrise and Sutton's Perfection ... 6 ,, 6d

Vegetable Marrows, long green and white, green and
white bush, and Moire's Cream ... 6 ,, 6d

Mrs. PYM, F.R.H.S., 10, Vine House Woodstone, Peterborough

THE GARDEN.

No. 2273.—VOL. LXXIX.

JUNE 12, 1915.

NOTES OF THE WEEK.

Blackbirds Eating Fruits of Sea Buckthorn.

A few days ago we were interested in watching two blackbirds eating the semi-dried fruits of the Sea Buckthorn (*Hippophaë rhamnoides*), and evidently enjoying them. We do not remember seeing birds eating these fruits before. Mr. W. J. Bean, in his recently published work on trees and shrubs, states that "However pressed by hunger, birds will not eat the berries, which are filled with an intensely acid, yellowish juice." It is possible that as they reach a semi-dried state the berries lose their objectionable acidity. It would be interesting to know if any of our readers have noticed birds eating them.

A Pleasing Viola Combination.

During the last few weeks, visitors to Kew have been much interested in the large beds of Violas situated in front of the Palm House. In several of these the varieties Maggie Mott and White Swan have been used with excellent effect. The first named has flowers of a pleasing mauve-blue shade, and this has harmonised splendidly with the white. The plants are old ones, saved from last autumn, and have been used in the proportion of about two blue to one white.

Red Cross Rose Show in London.

All rosarians should make a point of visiting the Cannon Street Hotel, London, E.C., on Thursday, June 24, the day set apart for the City of London Rose Society's Show. Instead of abandoning their show this year, as so many societies have done, the committee decided to hold it as usual, but to devote the proceeds to the British Red Cross. Visitors will, therefore, be enabled to see an exhibit of beautiful Roses and at the same time contribute to a highly praiseworthy cause. The show opens at 1 p.m. and closes at 7 p.m.

A Beautiful Hardy Iris.—The illustration on this page represents a colony of *Iris pallida* *dalmatica*, one of the most beautiful of the so-called Flag Irises, and one that, fortunately, is not at all difficult to grow. In habit it is not unlike *I. germanica*, though more than a casual inspection will reveal several differences. The foliage is much broader, somewhat dwarfer and very glaucous. The flower-stems, too, are more branched, and the spathes are silvery white. The

blossoms are a pleasing shade of lilac blue, and continue in good condition longer than those of *I. germanica*. It will thrive in any ordinarily good garden soil that is well drained.

Mr. Frank Reader and the Horticultural Press.—A pleasing little function was held at the Royal Horticultural Hall, Vincent Square, Westminster, on Tuesday last, when Mr. Frank Reader, Chief Cashier of the Royal Horticultural

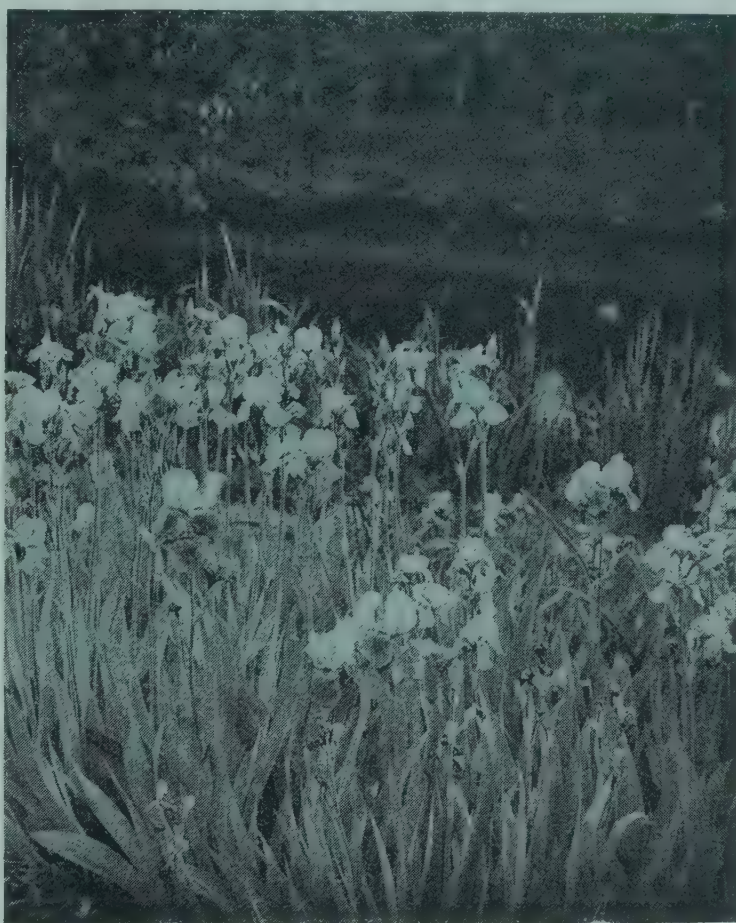
watch-chain had attached to it a suitably engraved pendant, and this and the brooch were accompanied by a letter bearing the signatures of all who had subscribed to the testimonial.

The Judas Tree.—This little-known, low-growing tree, *Cercis Siliquastrum*, has been very beautiful during the past fortnight, its myriads of Pea-shaped flowers forming billows of rose mauve, relieved here and there by the clusters of newly opened, pale green reniform leaves. It is quite hardy in this country, but does not always flower freely, though where quite at home a fair quantity of blossom is produced each year. The colour of the flowers varies in intensity on different trees, the brightest that we have seen being in Mr. E. A. Bowles' garden at Waltham Cross. It is a native of the Mediterranean region.

A Curious Honeysuckle.—Although it is seldom met with in private gardens, the Honeysuckle known as *Lonicera hispida* has been grown in botanic gardens for some years. A native of Central Asia and Siberia, it was introduced to this country about 100 years ago. It forms a spreading bush 4 feet or more in height, its long, slender branches bearing their leaves in pairs. These are ovate-lanceolate in shape, very hairy, and dark green in colour. The flowers are large, resembling in shape and size those of the *Diervilla* or *Weigela*. They are borne in pairs, and open at the present time. Each pair of blossoms has a large, hooded, leaf-like twin sepal, pale green in colour, which harmonises well with the primrose yellow of the flowers. Although not borne in profusion, these are certainly beautiful, and the shrub is one that might well find a place in those gardens where unusual kinds are appreciated.

The Scarlet and Black Poppy.—A brilliant bit of colouring may be seen at Kew just now, at the end of the Temperate House, where that gorgeous

Poppy, *Papaver commutatum* or *P. umbrosum*, has been sown broadcast in the open spaces between various kinds of shrubs. Here the Poppies create a waving mass of scarlet and black, the intensity of which is increased when lit up by brilliant sunshine. The black is created by a large blotch situated at the base of each crimson-scarlet petal, both on the interior and exterior. In habit and general character this Poppy is not unlike the Shirley Poppy, now so well known in gardens.



A COLONY OF *IRIS PALLIDA DALMATICA*, A HARDY PLANT WITH BEAUTIFUL PALE BLUE FLOWERS.

Society, was presented with a gold watch-chain and pendant, with a gold brooch for Mrs. Reader, by members of the horticultural Press. It will be remembered that Mr. Reader recently completed his twenty-fifth year with the society, and it was thought that a fitting occasion had arisen to present him with something useful and lasting as an appreciation of the kindness and courtesy that he has invariably extended to members of the Press during that period. The

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

A Noble Tree Heath.—I herewith enclose a photograph of Erica arborea growing at the bottom of the rock garden at Wayford Manor. I think it is a fine specimen. It has been planted about eight years. I am standing beside it to show its size.—E. B. GIBLIN, *The Gardens, Wayford Manor, Crewkerne, Somerset.*

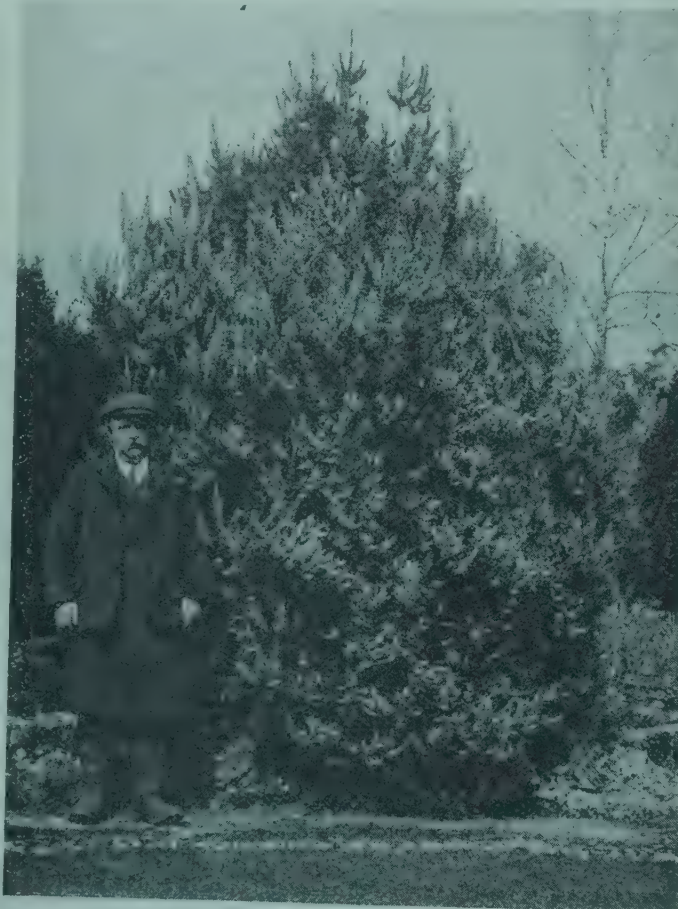
Lilac Souvenir de Louis Spath.—I was glad to see you draw attention to this Lilac on page 265, issue of May 29. For garden decoration it is the most beautiful of all the fifty varieties I grow here. Three bushes of this variety cannot have fewer than 2,000 panicles each, and, flowering as they do simultaneously, they provide a lovely patch of colour, emphasised so much when they happen to have an evergreen background.—E. MOLYNEUX, *Swanmore, Hants.*

The Tulip in Bygone Days.—Now that the Tulip is one of our most admired flowers, and one which gives us more colour and pleasure at this time of the year than almost anything else (personally, I consider it far more beautiful, lasting and satisfying than any Rose), it is interesting to remember what was thought of it by old writers. Thomas Fuller, a writer who lived in the middle of the seventeenth century, about which date Tulips seem to have been introduced into England, speaks of the flower as "a well complexioned stink, an ill favour wrapt up in pleasant odours" (Did he mean colours?); while, later still, Joubert, in his "Thoughts," calls it "A flower without a soul." Perhaps this is so, and I understand what he means; but we could ill dispense with its varied colours, while there is no flower so decorative when cut, so easy to arrange, or more lasting in water.—A. LA T.

Limelight Flowers.—A recent article with this title in the *Times* arrested my attention. On reading it I found the writer referred particularly to the sickly, jaundiced, yellow-pink shades so much in vogue during the last few years. I own I was at first beguiled by their brilliance and novelty (for I do not recall any wild flowers of this hue), but after a couple of seasons I banished them from my borders, finding they quarrelled with nearly all their neighbours—the dear old pink, rose and crimson inhabitants of long standing. So I only retained a few very fragrant Roses with rich red foliage behind a line of silver grey-foliaged sweet white Pinks, interspersed with delicate lavender and mauve English Irises and the many shaded Shirley Poppies, which never jar with one another. Nevertheless, "limelight flowers" look very well for table decoration, and may well be grown in some place set apart for the purpose. But in the garden I find them almost, if not quite, as bad as that horrid Geranium West Brighton Gem. The only place I have ever found that tolerable is West Brighton, where, along the side of the green Hove lawns, against the eternal hedges of Euonymus and with the spacious background of sea and sky, West Brighton Gem suits the gay gowns and glaring artificiality of the surroundings.—ANNE AMATEUR.

Roses and Pinks.—I was very pleased to see the note and illustration on page 277 of last week's issue. For some years I have grown Pinks as edgings to Rose beds and borders and at all seasons find the association a most happy one. The Pinks are the small white ones, and in a few instances the old laced varieties.—NEMO.

Early Flowering of Liliun giganteum.—This not at all common Lily is a very handsome plant. We had one in bloom on May 25 which was only started three years ago. The parent of the present bulb bloomed and, of course, died in 1912. I grew on four of the offsets, giving one of these, when a year old, to a friend. Our own three plants have all had the same treatment, but only one has flowered this year. They are grown in 8-inch pots in a cool greenhouse. The flower-spike is about eight feet high and carries eleven blooms. I have frequently been told that



A NOBLE TREE HEATH GROWING IN THE GARDENS AT WAYFORD MANOR, CREWKERNE, SOMERSET.

five years have to elapse before this Lily blooms, and would be glad if other readers would give their experiences with it.—C. BLAIR, *Preston House Gardens, Linlithgow.*

Sun Roses.—There are no better plants than the many pretty varieties of Helianthemum for hot, sunny banks in light soil, where their near relatives the Rock Roses flourish, and where Phlomis, Lavender, Santolina, Stachys and Catmint are also at their best and happiest. But the weak point of the pretty little Sun Roses is that they so soon grow into wide, straggling carpets, so that after two years the patches become quite unsightly and have to be renewed. It does not seem to be generally known that this can be corrected, and the life of the plants in good shape prolonged for several years, by cutting them hard back when the best of the bloom is over. They then grow away again almost at once, and by the late

summer are well-furnished leafy tufts with quantity of close-at-home blooming shoots for next year. I cannot say how long the process may be repeated, but have had some tufts cut back for quite seven years, that as yet show no sign of being worn out. The same treatment can be applied to the beautiful yellow-flowered Helianthemum formosum, often called Cistus formosus. It is perhaps in horticulture assumed to be a Cistus because of the much larger flower and larger growth generally, and is probably, botanically, a link between Cistus and Helianthemum, in company with its congeners H. halimifolium and H. algarvense and others of less garden merit; but it is a useful guide to remember that no true Cistus has yellow flowers.—G. JEKYLL.

Large versus Small Vegetables.—"Ann Amateur" seems very sore on this point, and cannot help thinking, in the issue for May 29, page 266, that her letter is suggestive of picking other people's ideas to pieces rather than the main object, though I have from time to time been very interested in her notes. Let me explain that I have had a good deal of experience in both growing and selling for market, and Cauliflowers must be a good size—average 6 inches—and clean to make a good price. Small ones will not sell if larger can be had. Carrots and Onions are preferred small on account of retailers having to sell them in small quantities. French and Runner Beans are of no use unless young, but all other vegetables sell better on the larger scale, which proves that small vegetables are only needed on the very daintiest of tables. I have to send Broad Beans in for my people when quite young; but as they want only one lot, this proves that they are not considered a luxury. There are two meanings in the words "small vegetables"—one is young vegetables grown well and quickly and eaten before they get any flavour; the other, vegetables grown by careless people who plant them and afterwards allow them to take their chance. Being long in growth and never very luxuriant, they will always be both strong and stringy. Give the same varieties a good garden and care, with the idea of obtaining exhibition vegetables, and if used just when they reach perfection I would defy anyone to call them strong or stringy. Surely in the case of the beautiful New Intermediate

Carrots there is no disgrace in two good Carrots being quartered before being cooked to make a dish of eight nice pieces. "A. La T.'s" letter, I considered, with Mr. Beckett, was suggestive of nothing but waste, and surely in this great crisis of our national history we should do all possible to put our little likes and dislikes on one side and grow as many and as large vegetables as possible, so that if we do not want them all ourselves we can help others.—G. ANDREWS, *Tilmanstone.*

Sparrows in the Garden.—I have read with interest the letters by "O. N. E. Another" and "Bird Lover" published in recent issues of THE GARDEN, and I feel I must state my whole-hearted agreement up to the present with the latter writer. We suffer so much from sparrows here that I speak feelingly. "O. N. E. Another's" toleration and kindness is all very well and, indeed, most

admirable, so long as the sparrows play the game—that is to say, provided he gets sparrows which are thoughtful and grateful to him for what he does. Our experiences here are somewhat different. We are fond of birds, and sparrows are never maltreated in any way save one, viz., the torment of being prevented, as far as possible, from getting at certain choicer morsels. But we find they do not repay our kindness. They begin with the Crocuses in the early spring, and then attack young plants and seeds just nicely coming up. We have to keep them off as well as we can with netting, black cotton, Pea-sticks and wire netting. Gooseberry bushes have to be protected every season. You cannot put young Lettuce plants out in the spring without cotton; and a clergyman friend who lives in Sheffield and whose calling does not permit him to utter, well, words which perhaps were better not said, is getting quite despairing about ever growing grass from seed on the bare patches of his lawn, for the sparrows, despite his efforts, contrive to fetch off the seed. I do not hold with the view that sparrows do these and other equally wicked things to get water and moisture. I think they do it because they like good things. Has “O. N. E. Another” ever found sparrows taking their dust baths in a bed just sown with choice Godetia or other seeds, and the seeds and soil thrown all over the place? This is what we suffer from unless we take steps. No, no; “O. N. E. Another” knows his garden and his sparrows, and we know ours. For my own part I never trust them, and I advise other readers to at once take strenuous steps to prevent sparrows getting at their crops.—E. T. ELLIS, *Weetwood, Ecclesall, Sheffield.*

The Oak: Some Historical Notes.—“Caledonia’s” note on the Evergreen Oak, page 242 issue May 22, is rather inadequate. This tree has probably the remotest history of any cultivated ornamental tree, as it was used in forming groves for the Divine worship of classic ages in the Mediterranean regions. The Hebrew word “Alah,” mentioned in Scripture, is considered by most authorities to refer to the Holm or Evergreen Oak, though applied to other Quercuses. Its introduction to England is usually referred to the end of the sixteenth century, but there is little doubt that it was lost to England by the destruction of the monasteries at the Reformation, and then reintroduced from the South of Europe. It is commoner in the South of England than further North, and is a usual feature of old pleasure grounds. It has been neglected in recent times by planters, as it is somewhat difficult to establish. Nurserymen thus usually offer it in pots. Once established it is a free and rapid grower, given a good loam and well-drained site, without too much exposure. Like all the Oaks, it stands lopping and cutting well, though not regular clipping for any length of time. It is usually seen as a broad, spreading tree, sometimes with a head 100 feet across, and an isolated old specimen is very striking with its very dark foliage and dense, regular growth. Among other trees it attains a more upright habit, though always with a rounded contour, and divides into several stems at a few feet above the ground. It will attain a height of 60 feet. There is one approximately that height at Cobham Hall, Gravesend, with a magnificent expanse of limbs. Close to it and surpassing it in height is a fine specimen of the Willow Oak (*Quercus Phellos*), a species much less planted than it should be. With its light, graceful foliage

and open habit, the Willow Oak contrasts with all other species of Oak, and is of comparatively rapid growth. Both *Quercus Phellos* and *Q. Ilex* at Cobham Hall are about a hundred and twenty years old. There is no tree with the same number of species and varieties as the Oak. Even the literature relating to it is very extensive. Many of its species are little known, and notes regarding little-known specimens would be welcome. One of the most pictorial of trees is the silver variegated form of *Quercus Cerris* (the Turkey Oak). The best specimens I have seen were in Messrs. Fisher, Son and Sibray’s nursery, Handsworth, Sheffield. It is little known. The Scarlet Oak is now planted very frequently. There is an avenue of it at Cumberland Lodge, Windsor Great Park, but only recently planted. The possible size of the English Oak is a debatable question. Most authorities give 100 feet as its maximum height, but 180 feet have been given by some as attained by the Oak. The Evergreen Oak fruits even more freely than the English Oak, and, given proper protection, it is best to sow the Acorns where they are to develop, without transplanting. As a shelter or screen tree for game coverts and many similar purposes, *Quercus Ilex* deserves more extended use.—HURSTCOT.

TULIP NOTES.

BY THE REV. JOSEPH JACOB.

New Varieties.—The displays of a series of his own home-raised seedlings by Mr. Walter T. Ware, both at the Conference Show and at Chelsea, is an event of importance to all Tulip-lovers. Hitherto—at any rate I may say until last year, when Messrs. E. H. Krelage and Son produced at one of our May exhibitions at the Hall visible proof in the appearance of Siren that the grass has not been growing under their feet—the appearances of seedlings have been few and far between. Messrs. R. Wallace and Co. of Colchester have put on the market a small and very striking series, which includes Grenadier, Beau Brummell, and Boadicea, which is extremely like a great favourite of mine, the true pointed petalled Hammer Hales. Mr. A. D. Hall has raised some remarkable English florists’ varieties, of which Miss Willmott (a rose), whose breaking is being looked forward to with the liveliest expectations, is a flower of the very highest quality. Others, which were to be seen on his stand of Breeders at Chelsea, include Helen (rose), Athos (bybloemen), Gleam (bizarre) and Enid Christie (rose). I have seen some fine midseason seedlings in a very old garden behind one of the houses on the right-hand side of Kleine Houtweg as one goes from the town of Haarlem to the famous “wood,” a few of the best of which have already come to England, and are being “grown on.” I have also seen a fair stretch of young plants just entering upon the flowering period of their lives in the Zwanenburg Gardens in the famous Tulip city, one of which, a pure white Darwin, will deserve a *fête* day and a Queen to do it honour, when its turn comes to be exposed to public view. Should such an event come to pass, may my old bachelor friend who presides over the fortunes of those gardens be rewarded, as was Cornelius van Baerle, with something more than a money prize. Here is a nice name, “*Tulipa alba Rosa Tubergeniensis*”!

If, however, of late years we have had to look to sports for our novelties, everyone who

knows the flower will readily acknowledge that when Prince of Austria sported and became De Wet, it gave us a variety of outstanding merit, and one for which I confidently predict a great future. So, too, when Pink Beauty gave us the marvellous White Beauty; and others still—Cullinan, President Cleveland, President Taft and Safrano—we were not left quite without novelties, but there were by no means many. It could not be otherwise if we think for a moment of the difference between “sporting” and seed. The very thought of seedlings is like “Who said rats?” We are all expectancy. In next May I fancy the scent will be very hot. We had a foretaste this year with Lena, Burgundy, Empire, Imperial, Inglescombe White, Bloodstone, Satin Gown, Winner, Inglescombe Mauve, Brockweir, Creselda, Comedy and Mirvana. Out of this baker’s dozen Empire, Inglescombe White, Bloodstone, Satin Gown, Winner, Comedy and Mirvana have been given awards in 1915, and have been already described on pages 260 and 273 of *THE GARDEN*. There has been considerable discussion as to the relative merits of the seedlings. My own opinion of them was different on the Thursday of Chelsea to what it was on the Tuesday, mainly with regard to Brockweir. Between times the blooms had grown and developed colour, and I was then able to understand why Mr. E. M. Crosfield had picked this as the one to be named after his house. I find I did not make a colour description on the spot, but the impression left upon my mind is one of an almost Darwin-shaped bloom with colouring something between Orange Beauty and the less-known Konigskroon. Another variety which had changed for the better was Inglescombe Mauve. One saw why Inglescombe is part of the name. Let me say that this name is not attached to “any Dick, Tom or Harry” of a flower. It is an attractive, long-shaped bloom of a mauve on the blue or lavender side. Against these gains must be set the falling down from its high pinnacle of Inglescombe White. A good tall-growing white Cottage is one of the “wants” of tulipdom. We have Dora and Didieri alba, but the first is too short and the second too small; while if Inglescombe White is the third “old maid,” she is too shapeless. A last word about Comedy, which is a most beautiful rose colour without the least trace of blue in its composition. It bore a striking resemblance to Hall’s Miss Willmott, but of the two it was the brighter shade, although the colour did not have such a solid all over look. I will always think of it in my own mind as the flower of the flock at Chelsea; and readers, please remember that, as the preacher said of the fatted calf that the father had kept for “years and years, and years,” it was no ordinary flock that bore the brand of “W. T. W.” at Chelsea.

Good Old Stagers.—Amid the many old and sometimes long-lost friends which one has met at the trials at Wisley and elsewhere during the month of May, 1915, it would be strange if there were none that impressed themselves upon one in a way they had not done before. For example, I never have thought more of gesneriana spathulata, Picotee, Clara Butt, Farncombe Sanders or Faust than I do now. Without divulging any details of what is still *sub judice* with regard to the selected varieties in the different colour classes, it will be a surprise to many to find how the committee at Wisley again and again had to rely on the old favourites when it came to a definite selection.

YELLOW-FLOWERED EVER-GREEN RHODODENDRONS.

THE most remarkable feature of this interesting subject is that while there is an abundance of hardy yellow-flowered deciduous hybrid Azaleas or Rhododendrons, we do not yet possess in gardens a hardy, large-flowered evergreen Rhododendron with rich yellow flowers. Enthusiasts of this lovely and

the bushy plants are no great height, but ultimately they are said to reach from 5 feet to 6 feet. The leaves are obovate, dark green, $1\frac{1}{2}$ inches to 3 inches long, and about an inch broad. Flowers yellow, with darker yellow green spots, about two inches in diameter, borne in terminal clusters of four to six or seven flowers. These open during April. Though the plants are quite hardy, this early flowering character makes it very desirable that they should be grown in a position sheltered from the early morning sun. Seeds of this species ripen freely in this country. Unfortunately,

free-flowering qualities. It forms a shapely bush some 5 feet to 7 feet or more in height, with dark glossy green leaves, greyish white beneath. The bell-shaped blossoms are 2 inches to $2\frac{1}{2}$ inches across, borne in loose terminal clusters of five to nine sulphur yellow flowers. A splendid Rhododendron for the outdoor garden in the South and West, *R. campylocarpum* is rather tender, and at Kew will only thrive outside in sheltered positions.

***R. flavidum*.**—This is a dainty species with pale yellow flowers, growing to 2 feet in height. It is a Chinese species, and, under the name of *R. primulinum*, plants raised from seeds collected by Mr. Wilson and exhibited by Messrs. James Veitch and Sons, Limited, were given an award of merit by the Royal Horticultural Society. A good subject for sheltered nooks in the rock garden, *R. flavidum* has evergreen leaves three-quarters of an inch to an inch long, ovate-oblong, dark green above, paler beneath. The flowers are produced during April, three to five in a cluster at the ends of the shoots, each one being about an inch across. The plants flower when only a few inches high.

***R. lutescens*.**—This species was first introduced from China by the French missionary Abbé David, and later by Mr. E. H. Wilson. It is an evergreen bush with lanceolate leaves and yellow flowers, not unlike those of *R. ambiguum*. The flowers, however, are borne singly or in pairs in the axils of the leaves towards the ends of the shoots and also terminal, whereas in *R. ambiguum* they are all terminal. *R. lutescens*, unfortunately, starts into growth early, and is thus very liable to damage by spring frosts. The flowering season is April.

***R. Nuttallii*.**—This is really a tender species, but it has such large, creamy white flowers that one is tempted to name it as a possible species to cross with a hardy kind in the endeavour to get a large-flowered rich yellow hybrid. As can be readily seen by the illustration, there is ample substance in the flowers. They measure 5 inches to 6 inches across, and may very well be likened to a large Lily flower. A native of Bhotan, *R. Nuttallii* grows at about five thousand feet elevation, and was first introduced in 1859.

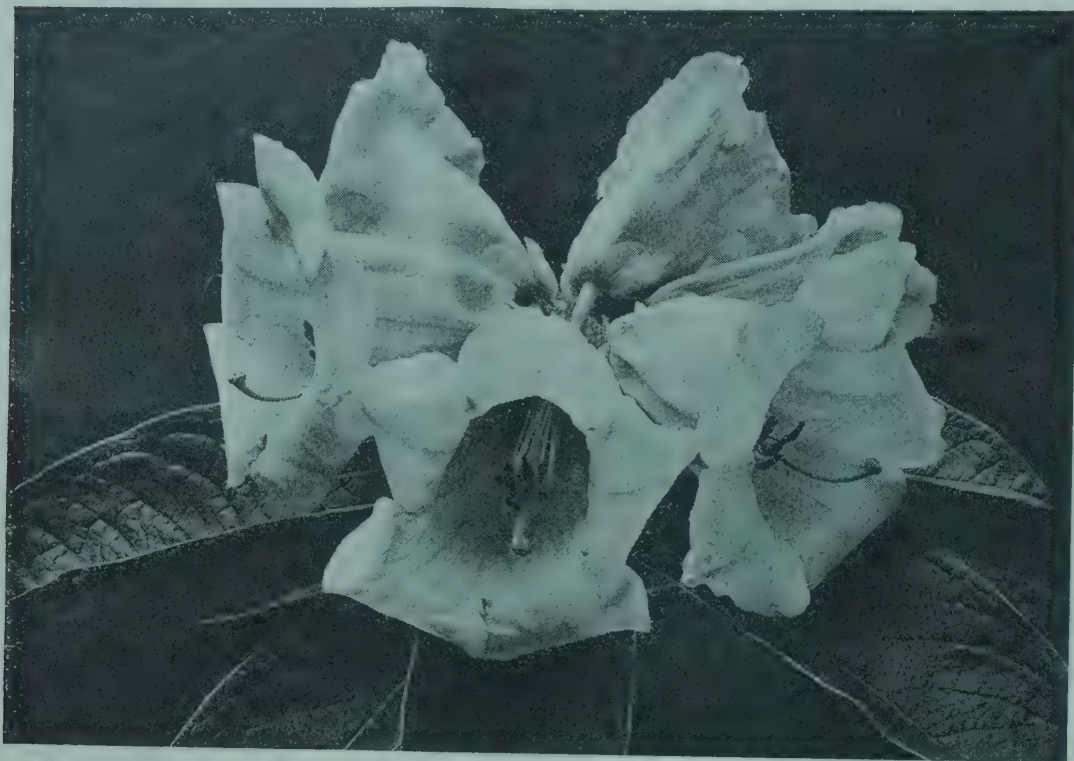
***R. ochroleucum*.**—This is a hybrid with creamy white flowers. The illustration on page 291 shows it to be a good free-flowering plant, and possibly a step on the road to a good yellow.

***R. sulphureum*.**—Here we have the best yellow evergreen Rhododendron in commerce to date. It was raised at Comely Bank, Edinburgh, about 1894. The parents are said to be *R. caucasicum* × *R. arboreum album*. The general character of the plant suggests *R. ochroleucum* as one of the parents. *R. sulphureum* forms a rather low-growing, compact bush, opening its sulphur yellow flowers towards the end of April.

***R. Smithii aureum*.**—This is a low-growing, spreading bush of compact habit. A hybrid between an evergreen Rhododendron and a yellow Azalea, *R. Smithii aureum* was raised some years ago by Mr. Smith, the then owner of a nursery at Norbiton, near Kingston-on-Thames. At first sight the plant resembles *R. Broughtonii aureum*, but is distinguished by the leaves being glaucous beneath, and the flowers are of a lighter yellow shade.

***R. triflorum*.**—Another species not perfectly hardy from Sikkim. It has pale yellow flowers, which might prove of use in the hands of the hybridist.

A. O.



A FLOWERING SHOOT OF RHODODENDRON NUTTALLII. THE BLOOMS ARE VERY LARGE.

showy genus often comment upon and regret this failing. Considering, for instance, the many beautiful hybrids which have been obtained from *Rhododendron arboreum*, it should be possible, with the skill and care of the hybridist, to make some advance in the direction indicated. In addition to the older species with flowers of a yellow shade of colour, there are several yellow-flowered species among the many new Rhododendrons of recent introduction from China. Perhaps with the help of these the hybridist will in course of time be able to evolve a good evergreen sort with rich yellow flowers.

So far the two most useful evergreen Rhododendrons of this colour are *R. Broughtonii aureum* and *R. Smithii aureum*. These are hybrids obtained by crossing an evergreen Rhododendron and a deciduous yellow-flowered Azalea. They were formerly known as Azaleodendrons, but since the fusion of Rhododendrons and Azaleas into one genus, this name has disappeared. Under glass there are several hybrid Javanese Rhododendrons with delightfully rich yellow blooms and evergreen foliage, but their tender character debars their use in the endeavour to obtain a hardy yellow-flowered variety.

***Rhododendron ambiguum*.**—This is an evergreen Chinese species introduced by Mr. E. H. Wilson. Judged by the number of times it has been collected by him, this must be a fairly common species. At present, though flowering freely,

confusion exists between this species and *R. concinnum*. Botanically they are closely allied, but the true *R. concinnum* has purple flowers.

***R. Anthopogon*.**—An alpine species from the Himalayas and Northern Asia, this is a very hardy plant, being found at an altitude of 9,000 feet to 16,000 feet in Nepal and Kashmir. Growing to about two feet in height, it has oval leaves 1 inch to $1\frac{1}{2}$ inches long, green above, scaly beneath. The small, bell-shaped flowers are borne in terminal clusters during April. The flowers are sulphur yellow. First introduced to British gardens in 1820, *R. Anthopogon* is an interesting species for the rock garden.

***R. Broughtonii aureum*.**—As previously mentioned, this is an Azaleodendron hybrid obtained by crossing an evergreen Rhododendron and a yellow Azalea. It was raised in the village of Broughton in Peeblesshire; hence the name. It forms a low-growing evergreen bush 2 feet to 3 feet in height; leaves dark bronze green above, pale green beneath, up to 6 inches long, and about one and a-half inches wide. The average number of flowers in a truss is about ten. These are $2\frac{1}{2}$ inches across, primrose yellow in colour, freely spotted reddish brown.

***R. campylocarpum*.**—A native of Sikkim, growing at an elevation of 12,000 feet, this is our best yellow-flowered evergreen Rhododendron. A plant growing outside at Kew was last year very beautiful and emphasised its

TREE PÆONIES.

THESE are among the most beautiful subjects from Japan that adorn our gardens. The flowers exhibit a great variety of colours, and their large blooms are invariably much admired.

The plants are seen to advantage when planted in the forefront of shrubberies, but they are sometimes grown in the ordinary herbaceous borders or in beds by themselves. It is important, however, to give them positions sheltered from the cold, biting winds, or they will not succeed, and the young foliage is liable to injury from spring frosts.

Tree Pæonies are not particularly fastidious as to soil, but that of a fairly loamy nature and well drained suits them admirably. A fairly rich rooting medium is desirable, and they derive much benefit from a top-dressing of well-rotted farmyard manure in the early summer, as this not only helps to feed the plants, but checks evaporation. Any suckers that grow from the rootstocks should be removed as they appear.

Late spring is a good time to plant out specimens from pots, provided they have been suitably hardened, and the plants will soon become established.

Tree Pæonies are often grown for conservatory decoration in the early spring, a time when their handsome blooms are invariably appreciated. It is necessary to allow the plants plenty of root room, and they derive benefit from weak doses of liquid manure. During the summer months the pots may be plunged outside in a bed of ashes.

Propagation is carried out by grafting in the summer. A non-flowering shoot is worked on a vigorous root of the herbaceous species. A union is readily formed if the plants are kept close in a frame, and the soil should be brought above the union to secure good results. It is a simple matter to obtain plants on their own roots by layering.

J. GARDNER

SOME EARLY ROSES.

WHAT a real delight it is to have some Roses in bloom during the month of May! Our first to flower was *Rosa sericea pteracantha*. This opened on May 19. It is a very interesting Rose, apart from its pretty white flowers, for these are studded all the way up the growths among the marvellous large spines. These latter are a most curious feature, and give to this variety a unique appearance, especially when the young growths are seen with the sun shining through, for then the spines are a vivid scarlet colour. As a flowering shrub *R. sericea pteracantha* could not fail to be a source of pleasure to those interested in such plants.

The next to open was *R. Hugonis* on May 20, and *R. Malyii* the following day. The former is a delightful yellow, flowering intensely right to the ground and giving a wonderful effect upon the lawn, and it lasts over several days. This species is a few days earlier than *R. xanthina*, which on May 29 was just opening. It is known as *R. Ecæ*, or the yellow Abyssinian Rose, and is supposed to be very scarce. It is a good strong grower, making a bush 3 feet to 4 feet high with me. Its beautiful elongated buds are most charming.

R. altaica was also in bloom at the same time as *R. Hugonis*. It is an old favourite, coming earlier than others of the *R. spinosissima* tribe. What a glorious picture is a big bush of *R. altaica*! I consider it one of the loveliest of single Roses. Another delightful gem is *R. Malyii*, allied to the alpina or Boursault Roses. Its soft rose pink blooms, so sweetly fragrant, give a lovely bit of colour when blended with the varieties previously named.

I would suggest planting *R. Hugonis*, *R. altaica*, *R. Malyii* and *R. sericea pteracantha* in one group, the latter in the centre, and they would form a most interesting feature if carefully grouped in front of dark conifers or Hollies. There are other beautiful species coming along which I hope to name later. I think we miss much in the matter of grouping these beautiful species, and certainly could make them far more interesting by planting together those that bloom at the same time.

DANECROFT.

INFORMAL AND WILD GARDENING.

BY JAMES HUDSON, V.M.H.

[The following is a lecture given by Mr Hudson before the members of the Royal Horticultural

and upkeep. This is perhaps not so much the case in our own country as in France and Italy, especially the latter. The most formal of these gardens might almost be kept in order by a machine, no room being left for the true art of gardening. The formal or the geometrical garden has a tendency to make those who look after it quite formal too. In such gardens every plant must be in its exact position to an inch, and every one must correspond with or stand in strict relation to another.

Again, in the formal garden there is generally too much repetition. This may produce a gorgeous blaze of colour, but it is not in the best sense effective. Where there is too much repetition, there must necessarily also be waste of material. When the system of bedding out was at its height, the glass houses through the spring months were crowded to excess with bedding plants, to the injury and weakening of the permanent plants therein. A vast amount of labour was spent over this work, labour that might have been employed in far more profitable ways; and labour is a serious item in these days. The sooner, then, that "carpet bedding and ribbon borders" are consigned to the limbo of obscurity, the better will it be, both for those who look after them and from the point of waste of material. It should be possible to arrange any flower garden in such a way as to have not more than two beds, at the very most, of any one



RHODODENDRON OCHROLEUCUM, A HYBRID WITH CREAMY WHITE FLOWERS.

Society and published in the Society's Journal for April last. We are indebted to the Council and to Mr. Hudson for permission to reproduce it.—ED.]

I DO not wish in any way to condemn formal or set gardening, but I think we still see too much of it. Formal gardens, no doubt, have their place in the wide field of horticulture, but they soon cease to charm.

Many of the garden designs of the seventeenth, eighteenth and nineteenth centuries appear set and formal. The most prominent feature in them generally is the elaborate architecture, frequently most costly, both in design

kind of plant, for variety is infinitely better than repetition. In one direction there has been an improvement of late years in the arranging of what I would describe as "picture beds," i.e., beds that are relieved by taller plants in the centre or at the back, in which way the formality is considerably lessened. These beds, when arranged with good taste as to colour, are undoubtedly effective.

A system has grown up of late years, especially in public parks, of frequently renewing the plants. Plants are put out into the beds which cannot in any sense be termed suitable for general

purposes. The beds or borders, as the case may be, look remarkably well for a time, and as soon as the plants begin to fade they are lifted and another lot put out in their place. Thus a wonderful display may be kept up, but it is not done in what I might term a fair way, as contrasted with those gardens which have not the accommodation or the resources to provide the second lot of material. Not in one private garden in a thousand is there accommodation for bringing forward a sufficient supply of plants to treat the bedding in this way, nor do I think it ought to be encouraged. I have noticed in some of our well-known public gardens what a crowding there is of material to produce the desired effect just for the time being. It is well known that these supplies of plants are brought forward in houses and pits built for that purpose alone. In private

4. It affords greater space for greater variety.

1. As to Economy.—This is attained in two ways. First, there need not be the waste of material—I mean the waste of having an excess of one kind of plant. In an informal garden there will be scope for variety rather than too much of one thing. The larger the garden, the greater should be the variety as a matter of course. Secondly, a better result will ensue from the same amount of labour, and in consequence the cultivation can be maintained at a higher standard.

2. As to Its Accomplishment.—It will be found to be an easier matter to manage an informal than a formal garden, for in an informal garden every opportunity will be, or should be, taken to find the most suitable position for any plants you may have, and no hard-and-fast rule will

is afforded for those that are being grown to develop in the best possible manner.

Waste of Material.—This occurs in various ways, one of which is that of planting or grouping too many shrubs or plants together *en masse*, which cannot help but produce a formal effect as the plants grow. Another way is the overcrowding of them at planting-time to produce what is called immediate effect. These, as they grow, crowd each other, and in the end are often all spoilt or made most unsightly by leggy, straggly growth. On the other hand, in an informal garden more reliance can be placed upon individual shrubs, trees or plants, and each plant may have given it the opportunity of ultimate development. In the planting of shrubs it is customary to allow for only narrow margins of turf and then the gravel walk or road. It is far better to keep the

shrubs well set back or to increase the width of the turf. The effect produced by a broad margin of turf adds greatly to the general appearance. It is an all too common practice to plant too many shrubs as an undergrowth to trees, thus impoverishing the trees, and notably so if the position be at all dry. In such situations I would rather use the common British Ferns than anything else, and plant Daffodils among them for spring flowering, and Colchiums or Crocus speciosus for the autumn. Wherever there are numbers of timber trees that have been too thickly planted—or should I not say, that were not thinned out when they should have been—there, if it be possible, encourage a carpeting of grass, with, say, Daffodils and Snowdrops. The boles of large trees should never be hidden, for they are distinctly ornamental at all seasons of the year. The familiar quotation of “Woodman spare that tree” is often applicable to the



INFORMAL GROUPING OF SHRUBS IN THE REV. W. WILKS' GARDEN AT SHIRLEY, SURREY.

gardens, therefore, it is next to impossible to compete with such cases as these. I well remember, when I was a young man, being told not to give too much heed to the cultivation of bedding plants which occupied the houses and pits to an excessive degree, and that advice was not lost. Nowadays, I am pleased to see more attention is being given to such plants as Antirrhinums and Pentstemons, to name only two instances of almost or quite hardy plants. These and the Viola will no doubt play a more important part in the future than they have done as yet.

It may be asked what do I mean by “Informal Gardening,” and what are its advantages? It has several points in its favour, as I hope to show.

1. It is more economical.
2. It is more easily accomplished.
3. It is more attractive the year through, at least to all real garden lovers and enthusiasts.

be made that certain plants must be put in certain places. Again, an informal garden may begin in quite a small way and be extended according to the tastes of the owner, or according to the suitability of the situation and soil for certain plants, as found out by experience.

3. As to Attractiveness.—If not at any one particular time so showy, an informal garden that is well planted and in good condition will be found more attractive the year round. More attention can be centred upon individual plants, and each of these can be made to display itself to the best advantage.

4. As to Greater Variety.—This almost speaks for itself as being a feature of such a garden. It should also be one of the great essentials of every well-managed garden; and as regards space, this also should be apparent, for by dispensing with the number of any given plant, more room

formal style of garden. If a tree be ever so beautiful it has to succumb to the inevitable, if it be so unfortunate as to stand in the way of a formal design. This occurs frequently when a new house is being erected. But why not alter the position of the site somewhat and spare the tree? Before it became the fashion to enclose the house on all sides with formal and kept gardens and shrubs, it was the custom to let one side at least abut upon a park-like open space—lesser or greater as the case might be. This method is excellent, as it adds rusticity to the view, with cattle grazing, in all probability, in the immediate foreground. Many views of country houses have been taken where this arrangement prevails; and where the grounds slope away from the building an opportunity is offered for most picturesque planting and grouping.

(To be continued.)

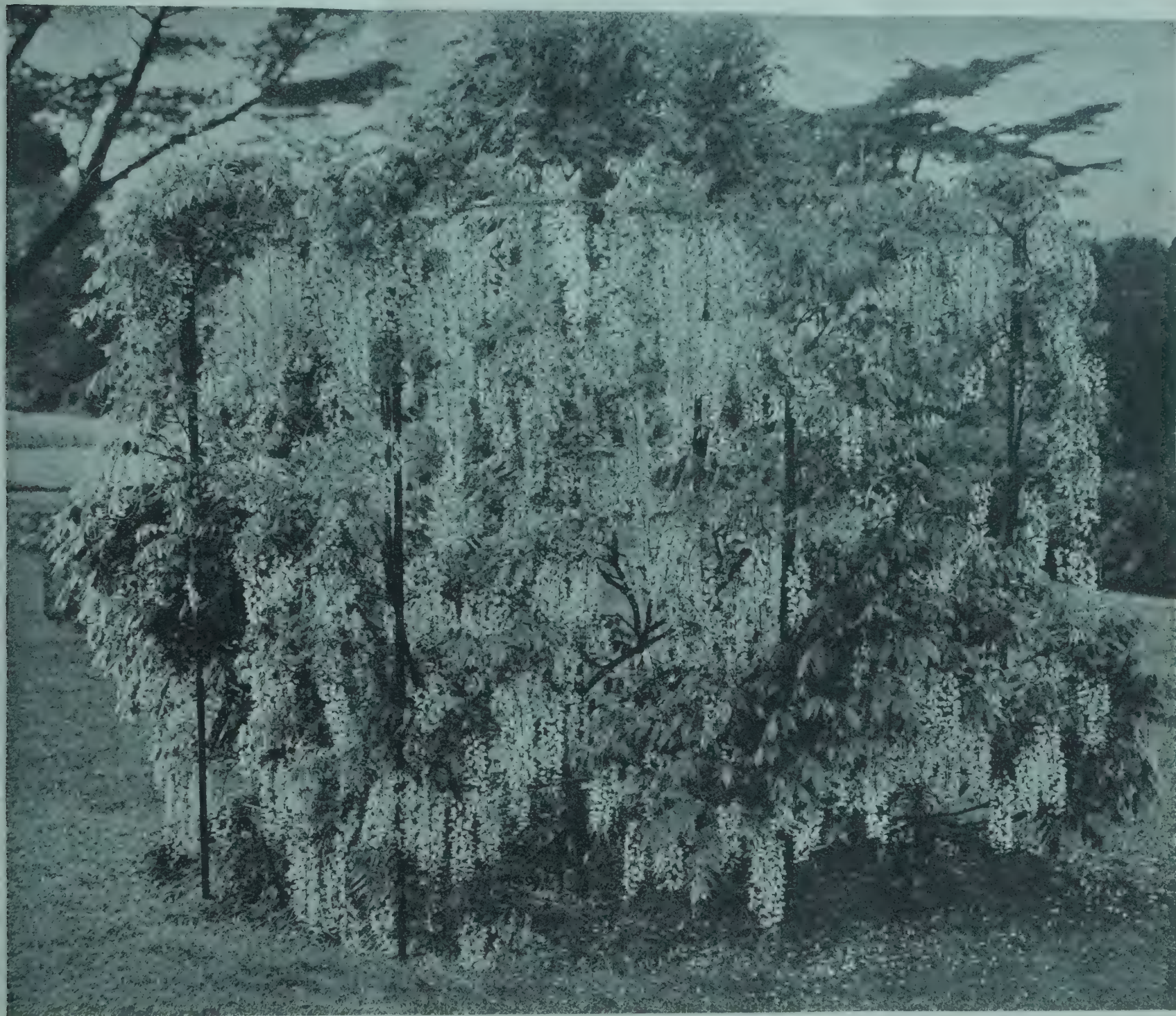
THE WISTARIAS AND THEIR CULTIVATION.

AT this season there are few plants in the outdoor garden that attract more attention than the Wistarias. Their long, pendulous racemes of soft blue or white flowers are always highly appreciated, and it would be

are to be found in this country, one of the oldest that I know clothing Mr. Arthur Turner's residence at Slough. This has huge branches that extend for a long distance, and a few years ago precautions had been taken to prevent wet entering cavities that had been caused by decay.

Soil.—Although not very particular as to soil, there is no doubt the Wistarias give the best results when grown in good, though rather light

Apple are formed; hence it is desirable to encourage the production of these as much as possible. For that reason summer pruning, *i.e.*, early July, is usually adopted. At that time the lateral or side shoots are cut back to within three or four buds of their base, much in the same way that one would spur in a Grape Vine during the winter; then in early autumn, say, towards the end of September, any lateral shoots that have been



WISTARIA MULTIJUGA GROWING IN A LAWN BED. THE STEMS ARE SUPPORTED WITH IRON PIPING.

difficult to mention climbers better adapted for pergolas or verandahs. Plants dwarfed by severe pruning are largely used for tubs or earthenware bowls, and these have their value for standing beside formal Lily pools, in cool conservatories, or even the hall of the dwelling-house. By nature a vigorous climber, the Wistaria does not appear to resent this dwarfing process; hence we may safely regard it as one of the most useful of all our hardy plants of shrubby character. Some very fine gnarled specimens of *Wistaria chinensis*

loam that is well drained. Very rich soil is not essential, though if on the poor side it would be advantageous to add some well-decayed manure in the lower spit before planting. The actual planting may be done either at the end of October or early in March, though specimens in pots could be put out at almost any season.

Pruning.—This is an important item in the successful cultivation of these beautiful climbers. The blossoms are produced on short, stunted spurs, much in the same way that those of the

made since the first pruning ought also to be cut back. Of course, where growths are needed for the extension of the plant, they must be left untouched, merely shortening them back somewhat at the autumn pruning.

The Best to Grow.—There are two species well worthy of extended cultivation, *viz.*, *W. chinensis* and *W. multijuga*. The first named is much the most prevalent of the two, and is the one usually seen growing on pergolas, verandahs, and sometimes on trellis. It is a native of China,

and its porcelain blue flowers are too well known to need description. Of far greater beauty is *W. multijuga*, owing to the length of the racemes. These sometimes attain a length of 3 feet, occasionally even more, and as they are produced in great profusion, a well-grown plant makes a beautiful picture during June. The type has blue flowers of much the same shade as *W. chinensis*, but there are several varieties, the best being that with white blossoms. The illustration on page 293 represents several plants of this variety grown as bushes in a large lawn bed.

A. B. ESSEX.

SAXIFRAGA MARGINATA.

SAXIFRAGA MARGINATA appears to be one of the best tempered of the *Kabschia* section, growing readily in a limy compost liberally mixed with

SEASONABLE NOTES ON VEGETABLES.

French Beans.—Support those growing in frames by a single stake. Keep the roots well watered and the foliage syringed, especially during hot and dry weather, to ward off attacks of red spider. Pick the Beans as fast as they are ready, so as to induce more to form upon the plants, and thus avoid a strain upon them, as is the case when seed-forming is allowed. Sow successional rows in the open of such varieties as *Canadian Wonder*.

Broccoli.—Plants for the main crop should be put out without delay, allowing plenty of room between them, as when growth is of a sturdy, well-matured character, the plants are less liable to suffer from frost. Should the weather be dry at planting-time, make holes with the dibber,

clear water. When growth is well advanced, apply liquid manure freely.

Ridge Cucumbers.—The earliest-raised plants in pots should be put out on slightly raised ridges of long manure, leaves and old potting soil. Sow for succession on the site where the plants are to grow, and to all plants in growth apply water freely, with a sprinkling overhead every evening.

Onions, on the whole, are looking well. Keep the soil stirred between the rows and occasionally dust with soot, wood-ashes or artificial manure, preferably during showery weather. The main crop, sown in the open in March, should now be thinned if extra large bulbs are required, although where a crop of serviceable Onions only is needed, it is not necessary to thin at all, or very little. It is surprising how the plants bulb, even when apparently crowded. Those put out singly and intended for exhibition must be well supplied with liquid manure and be nightly syringed, as they should be encouraged to make as much growth as possible during the next three months if they are to weigh 3lb. each. Less than this weight they are not considered satisfactory.

Peas.—Sow seed of late varieties of the Gladstone type in well-watered drills. Earth up early, and mulch each side of the row with manure to conserve moisture in the soil, assist growth and prevent an attack of mildew. Too many persons defer the mulching until they see the mildew on the haulm; it is then too late to remedy. Stake early, so that the haulm can have support for its tendrils. Water frequently rows in all stages of growth, as Peas are moisture-loving subjects, and quickly resent the lack of it by a relaxation of growth.

Turnips.—Make full sowings of the best varieties in shallow drills well soaked before sowing the seed. Cover lightly with soil and finally with short grass, which is a good remedy against Turnip fly and conserves the moisture in the soil, hastening germination of the seed. Keep the hoe moving among recently sown plots, occasionally dusting freely with soot or wood-ashes, which not only checks attacks of fly, but gives a deep

colour to the leaves, improving growth and imparting succulence to the roots.

Potatoes.—The growth of the haulm is irregular this season, even where the tubers were duly sprouted before planting. Such plants that are lagging behind should have a sprinkling of nitrate of soda or sulphate of ammonia to bring the growth to a level with that of the more promising plants. No time should be lost in earthing up all late-planted batches, first thinning out surplus weak growths where they promise to be overcrowded. Four shoots are ample for any tuber; indeed, fewer are better.

Cabbage.—This crop has been exceptionally good this season. So many of the newer varieties have "turned in" early, especially Harbinger, which is one of the most reliable of the early sorts. When cutting, do not cut too low, as a second crop will quickly come on and be most acceptable later.

Swanmore.

E. MOLYNEUX



SAXIFRAGA MARGINATA, AN EARLY FLOWERING SPECIES WITH WHITE BLOSSOMS.

grit, and exposed to the fullest sunshine. The small button-like rosettes are brilliantly silvery in dry weather, and these in early March throw up 3-inch stems bearing clusters of large, pure white flowers of great beauty. The accompanying illustration indicates how dainty a colony of these rosettes appears in the early spring, and how shapely and solid in texture the individual flowers are. The plant is readily propagated by division, which is best done soon after flowering, say, in April or May, and if shaded for a week or so from hot sun and occasionally syringed, should the weather be dry, the divided pieces rapidly make themselves at home in their new conditions and in a comparatively short time join up to form a pleasing hummock. Top-dressing with grit and humus at least twice a year is very beneficial, but care should be taken to do this on a dry day, so that the foliage is not soiled.

R. A. MALBY.

fill them with water, and plant afterwards, again watering them. It is better to induce the plants to start into growth at once, even at the expense of more labour, than to allow them to linger for days in the drought before root action can take place. The same remarks apply to all the Brassica tribe planted at this time.

Cucumbers in houses and frames need daily attention to thinning and shortening new growths. Take out the point at every second leaf, and remove entirely shoots that have borne fruit. This will make room for new shoots, and thus keep up a succession of fruiting growths. Occasionally remove old leaves to admit more light to the plants. As an extra stimulant to fruiting plants, remove an inch or so of the surface soil and replace with fresh loam and half-decayed horse-manure in equal parts, first sprinkling over the border a handful of soot or some concentrated manure, afterwards giving the whole a good soaking with

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Early Muscat Vines.—The foliage of Muscat Vines is very liable to scorch, especially after a spell of dull weather. This may be avoided by covering the glass with a light shading, such as fish-netting or a little limewash. To assist the berries to colour perfectly, the foliage must be drawn aside a little to admit plenty of light. The roots should have an abundance of water and stimulants till the berries are ripe.

Early Peaches.—When all the fruits have been gathered from the permanent trees, the borders must be given a thorough soaking with water. If red spider and thrip are present on the trees, the latter should be syringed with an insecticide late in the afternoon. A daily wash with the hose-pipe will also assist in dealing with these pests. The ventilators must now be kept open day and night.

Midseason Peaches.—When the fruits are approaching the ripening stage, the borders should not be watered if this can be avoided, as the flavour of the fruits would suffer. See that the fruits are well exposed to the light, and, to avoid scorching, place a double thickness of fish-netting over the glass. During the ripening stage admit plenty of air and keep the atmosphere of the house dry.

Plants Under Glass.

Gardenias.—When the old plants have passed out of flower, the most suitable may be transferred to larger pots. A rich soil is necessary, and some stimulants should be given during the growing season. Plenty of heat and moisture is essential to their well-being. Where there is convenience for planting them out, this method of culture should be adopted, as the flowers are then larger and much more numerous. After the flowering is over, the plants must be cut well back.

Annuals.—The conservatory and greenhouse may be considerably brightened at little expense by the use of annuals grown in pots. The following are suitable kinds: Browallias, Lobelia tenuior, Petunias, Asters, Godetias, Statice, Ten-week Stocks, annual Larkspurs and Phlox Drummondii.

Violets.—During hot, dry weather it will be necessary to spray the plants every evening. Light dustings with soot will help to keep the plants clean, and also act as a stimulant. Work the hoe freely between the plants to promote healthy growth, and remove all runners that appear.

The Flower Garden.

Climbing Plants.—Constant attention must be paid to the thinning and regulating of climbing plants growing on walls and pergolas, as they grow very quickly at this time of the year. Those which are infested with aphids should be syringed with an insecticide. The strong young growths from the base of climbing Roses must be preserved, as these will be required for next season's flowering.

Carnations.—Attend to the staking of the plants, or they may become damaged by wind and rain. The perpetual kinds will require regular attention in tying. Green Bamboo tips will be found the most suitable stakes for the perpetuals, but for border Carnations there is nothing better than wire supports. Seedling Dianthus of the Heddergii type may be planted among Carnations for a succession of flowers after the Carnations have finished blooming.

Sweet Peas.—The earliest plants are now showing their flower-buds, and must be given plenty of stimulants. Hoe between the rows, especially after heavy rains. If not already done, place a mulch of well-seasoned manure over the roots.

The Hardy Fruit Garden.

Raspberries and Loganberries.—Attention must now be given to the young growths which are springing from the base of the plants. Those on Raspberries may be thinned to about six to each stool. The growths on Loganberries should be secured to stakes, or they will be damaged.

Autumn-fruiting Raspberries must be severely thinned, or the crop will suffer in quality.

Summer Pruning.—The summer pruning or pinching of trained trees is a matter of great importance, and must not be neglected. Young trees especially should be well looked after in this matter. Select carefully those shoots which are needed for extension, and in the case of wall trees secure them in their positions on the walls.

The Kitchen Garden.

Asparagus.—Cutting must be discontinued about the middle of the month. Attention should then be devoted to the growth of the plants. During showery weather artificial manure may be scattered over the beds. Should, however, the weather set in dry, a watering with diluted farm-yard manure will be beneficial. The stronger growths may be supported with stakes or wires to prevent damage by winds.

Mushrooms.—A shed on the north side of a wall, or, better still, a cellar, is the most suitable place for the growing of Mushrooms during the summer months. To make the most use of the space, oval beds are best. Prepare the materials under cover, and be sure that the manure is not too hot before spawning the beds.

Parsley.—Make a good sowing of Parsley in the open for the winter supply. The ground should be rich and deeply dug. A narrow border is convenient for growing winter Parsley, because lights may easily be fixed over it during very hard frosts.

Celery.—Take advantage of showery weather to plant Celery. Should a long spell of drought set in, water the plants frequently. Keep a sharp look-out for the Celery fly. Frequent dustings with soot when the foliage is damp will help to keep the plants free from this pest.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

Plants Under Glass.

Gloire de Lorraine Begonias which are expected to become large specimens by next winter must not be allowed to become potbound, or no amount of after-treatment will make them grow to the size of plants receiving timely attention. Fumigations should be frequent and regular to prevent attacks from mite and other insect pests.

Primulas.—Plants of the sinensis and stellata types will be ready for potting into $\frac{3}{4}$ -inch pots. Use a fairly light compost rich in leaf-soil and coarse silver sand. Now that the bedding plants have been cleared from the frames, a number can be used for growing Primulas and similar plants, taking care that the glass is first shaded to protect them from bright sunshine.

Bouvardias can now be either potted on or planted out in frames. If the latter method is adopted, they do not require so much attention to watering. The advantage gained by planting in frames is that they are easily fumigated, as these plants very rarely escape an attack from green fly.

Malmaison Carnations.—When flowers are required the entire year round—and this is possible by correct treatment if suitable varieties are grown—layering must now be commenced. Two year old plants are most suitable, as they are more economical in frame space. The growths layered should not be too large nor the incision made too long. After layering is done, keep the frames closed and fairly moist by spraying early in the afternoon; but care should be taken that this is not overdone, or rust may develop.

Heating.—If the season is normal, very little artificial heat will be required for the next few weeks. The fires are best kept burning, so that in the event of a sudden drop in the temperature, which generally happens when rain is likely, they may be stirred up at once to generate heat quickly.

The Flower Garden.

Annuals which were sown in the open where they are to flower must now be thinned. Most

kinds should be thinned sufficiently to allow each individual plant to expand to its full size, so that the natural habit and character of each may be displayed.

The Herbaceous Border.—Some of the early flowering subjects are already over, and the dead blooms ought to be removed. In some cases the plants should be partly cut over to allow greater room for others to develop. Further staking will be needed for Phloxes, Asters, Lychnis and many other plants. In staking the plants, try to conceal the ties and stakes, and allow the plants to have a natural appearance. The borders should be frequently stirred with the Dutch hoe.

Chrysanthemums.—Permanent stakes must now be put to each plant, the length depending on the varieties. Some of the very dwarf bedding kinds do not require this attention. Tarrad twine is best, but it should not be used too fine nor tied too tightly, or breakages will occur.

Roses.—Frequent inspection is necessary to remove any suckers which may appear; these are best removed by twisting or pulling them off entire. If merely cut back, they very quickly form other buds and reappear.

Sweet Peas will soon be flowering, and should be frequently tied and disbudded. The ground must be hoed often to retain all possible moisture, as this is better than having to resort to watering, which may, however, be necessary later when the plants become larger and require more moisture and food.

The Kitchen Garden.

Onions.—The plants which were sown under glass early in the year are now growing freely, and should be treated liberally if big bulbs are expected. Even if the ground was well manured in advance, additional stimulants must be applied during growth. If there is not much rain, it will be necessary to water in the manures.

Runner Beans.—These should not be allowed to get too long before being staked. Fairly tall stakes are necessary, but when these cannot be obtained it is quite possible to get good crops from the plants if they are occasionally pinched; this causes them to assume much the habit of Dwarf French Beans. When grown in this fashion less space should, of course, be allowed between the rows.

Tomatoes.—For plants which are to fruit during late autumn or early winter, seed must be sown now, choosing a free-setting variety. At this season it is much better to germinate the seed without the aid of artificial heat.

The Hardy Fruit Garden.

Strawberries.—If very dry conditions prevail, birds will devour the fruit long before it is ripe, so that it becomes necessary to net the plants early. Stout stakes should be placed at intervals of from 12 feet to 20 feet, and either wire or strong twine strained between them. By supporting the nets in this manner, much time is saved in the fruit gathering season, and the length of life of the nets is also increased.

Thinning Fruits.—With such a disastrous frost as came at the middle of May, when many outdoor fruit trees and bushes were in full bloom, I am afraid much thinning will not be necessary this year; still, it sometimes happens that trees growing quite near affected ones are bearing heavy crops. Apples, having now nicely set, ought to be gone over and the small and badly clustered fruits thinned. Where certain trees are known to drop their fruit badly, a timely watering will sometimes prevent this.

Fruit Under Glass.

Peaches and Nectarines.—As the fruits in the early houses approach maturity, there is a danger of injury by the sun on very bright days. To prevent this, shading should be sprayed on the roof of the glass house where they are growing, just sufficient to break the strong rays of the sun. As the fruits ripen they ought to be examined daily and all ripe fruit carefully pulled. Extreme care is necessary in the handling of ripe Peaches and Nectarines, owing to them being so easily marked and disfigured.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine.)

B. R. J.

Castlemilk Gardens, Lockerbie, N.B.

THE FRAGRANCE OF SPRING.

AFTER an exceptionally wet and gloomy winter, full of anxiety for all, and of sorrow for many an English home, we have all looked forward with even greater longing than in other years for the renewing of the joys of Nature which we call spring.

Spring was late in coming, but it has now come in the fulness of its beauty, bringing joy with its vivid yet tender verdure to our sense of sight, with the songs of its birds to our sense of hearing, with the delicate fragrance of leaf and flower to our sense of smell. The poet who wrote the Song of Solomon felt this awakening of Nature: "For lo: the winter is past, the rain is over and gone. The flowers appear on the earth, the time of the singing of birds is come, and the voice of the turtle is heard in our land. The fig tree putteth forth her green figs, and the vines with the tender grape give a good smell."

This last, this "good smell," is by no means the least of the pleasures of the garden in spring-time; in fact, all the year through I doubt if any sensation is more delightful than that given by the first whiff of Sweet Briar which greets us generally on some soft south windy day in early April. This, also, was later this year than usual in coming, and April was well advanced before we had the pleasure of inhaling that refreshing smell of Sweet Briar. When, at the end of April, the warm burst of sunshine came, it brought with it many delicious scents, which blended in the garden in a wholly delightful way.

One sunny day as I walked round the garden with a friend from London, she expressed more pleasure at the fragrance than even at the beauty of that spring day. From a border of double Arabis overshadowed by a Cherry tree in full blossom the scent of Almond was diffused through the air around, and mingled with the elusive yet pungent aroma of quantities of Muscari Heavenly Blue. Further on, the sweetest of all the Narcissi, well called *Narcissus odoratus rugulosus*, exhaled its perfume under a hedge of Sweet Briar, the deep golden flowers of this Jonquil looking wonderfully well against a background of the tender green of the Sweet Briar. The garden just then was full of Daffodils of all sorts. Most of this family have a more or less pleasant smell, from the old Daffa-down-dilly to the Pheasant's-eye *Narcissus*; but some classes are more fragrant than others. Nearly all the Leedsii are very sweet; so are the Poeticus, such as Virgil, Homer and Epic; but none, I think, has so strong a scent as the old Pheasant's-eye, *Narcissus recurvus*, and the double Gardenia-flowered *Narcissus*. These, however, do not bloom till May.

Big borders and window-boxes filled with Wallflowers of brilliant hues scent the air round and under the windows with their Almond-like fragrance. Here, too, are bushes of the aromatic Rosemary, this spring unusually full of unobtrusive lavender grey blooms. Violets, large and small, pour forth their delicate and always welcome scent from quite unexpected nooks and corners. They love to shelter under a hedge, or even wall, and if they can find some stones to push their roots under, they appear quite happy. There is a good deal of similarity between the scent of the Wallflower and that of the Violet. Both belong to Kerner's third group of flower smells,

which he calls "benzaloid," or aromatic; both have the specially delightful attribute of being able to diffuse their fragrance into the surrounding air; and both, unfortunately, lose that fragrance very quickly when picked and put into water. In this respect the double Violets are superior to the single, but they do not thrive well outdoors in this part of the world, and require the protection of a frame.

A bed of Hyacinths, though not very artistic to look at, is very pleasant to smell. Some of the Tulips—especially, I think, the pale yellows—have quite a sweet scent. The double Tulip called Yellow Rose is certainly fragrant, as is *Tulipa sylvestris*, which may sometimes be induced to naturalise itself in meadow or woodland.

One of the sweetest of yellow flowers is *Primula Auricula*, the Dusty Miller, a delightful little plant for a rather moist place, well wedged with stones, on the rockery. Its powdery stems and leaves of a soft green, edged with silver, are a beautiful setting for the deep yellow blossoms. *Primula sikkimensis*, also a lover of moist spots, has pale yellow flowers with lemon fragrance.

Another rockery plant with really exquisite scent is *Daphne Cneorum*, the Garland Flower. It is a tiny evergreen shrub of prostrate habit, with neat little heads of bright rose-coloured flowers collected in clusters like small Bouvardias. The trailing stems should be kept close to the earth with small stones, and it may be propagated by layers or cuttings. It enjoys a soil of peat and leaf-mould, and on our rockery it is associated with the white *Trilliums*, which flower about the same time.

Those who know M. Henri Correvon's delightful book of "Alpine Flora," illustrated with coloured reproductions of M. Philippe Robert's faithful yet decorative water-colour studies, may recall the illustration of this plant, and also M. Correvon's graceful poem on this little *Daphne*. In Mr. E. W. Clayforth's clever English edition of the book it is given in French, but for those who may not know it I copy the verses of a translation of it that has been given me:

"Raised high to Heaven where Jura's white rocks tower

The smooth-leaved *Daphne* with its cross like flower

Hallows with fragrance all the mountain air.

Along the hills' wild crest, by night and day

The flowers incarnate sing love's roundelay

Lonely yet wise, the Sun's gay gifts they share.

Raised high above the world's harsh noise and cries

They spread their pink flowers 'neath the clearest skies

Happy to flood the air with incense rare."

With the advent of May come the sweet Lilies of the Valley, also fond of peat and leaf-mould, followed by the many scented flowering shrubs—the Hawthorns, Laburnums and, most fragrant of all, the Lilacs. Perhaps there is no other scent which has to the same degree as the Lilac the power of awakening slumbering thoughts and recalling old memories. Walt Whitman tells of this attribute of the Lilac in the first of his "Memories of President Lincoln," called "When Lilacs last in the dooryard bloom'd":

"When Lilacs last in the dooryard bloom'd
And the great star early droop'd in the western
sky in the night

I mourned, and yet shall mourn with ever-returning spring.

Ever-returning spring, trinity sure to me you bring

Lilac blooming perennial and drooping star 'in the west,

And thought of him I love."

The poet goes on to give a charming description of the Lilac bush: "tall growing with heart shaped leaves of rich green, with many a pointed blossom rising delicate, with the perfume strong I love, with every leaf a miracle," and a little further on he writes: "Yet the Lilac with masterful odour holds me." There are many beautiful varieties of Lilac. Among the best are Marie Legraye, single white, very free in flowering; Mme. Lemoine and Mme. Abel Chatenay, double white, with big blooms which last well; Beranger, single lilac; President Grévy, double, of a bluish lavender; and, most striking of all, Souvenir de Louis Späth, with great spiral clusters of dark vinous purple bloom. A big bush of this variety in our garden, when in bloom in mid-May, always attracts admiration. It lasts in perfection longer than most of the Lilacs.

Before the end of May some of the Rose species are in bloom. *Rosa alpina* and *R. a. pendulina*, with attractive, bright single blooms of magenta crimson, a better colour than the type, have a distinctly resinous and refreshing scent, and the little double Scotch Roses and the Rugosas are very fragrant, while the leaves of *Rosa pomifera* are almost as fragrant as the Sweet Briars. But with the mention of Roses I feel I am trespassing on the domain of summer.

We have seen something of what spring may bring to us in the garden, and when we are planting let us not forget that fragrance is a flower's most gracious and endearing charm.

If we leave the garden and wander into wood and meadow on a mild May day, we shall still have our senses satisfied with lovely odours and delicate scents. The wild Hyacinths or Bluebells which carpet our woods with Ruskin's "dust of sapphire" have a very pleasant honey smell, and nothing is more refreshing than the fragrance of a meadow sprinkled over with Cowslips; in fact, when an English spring really comes with its soft showers and genial sunshine, the "very fields breathe sweet," and the earth itself gives forth a goodly smell.

WHITE LADY.

ANSWERS TO CORRESPONDENTS.

FLOWER GARDEN.

LILY OF THE VALLEY UNDER TREES (*K. Marshall*).—In Nature this is frequently found in woodland places, and in the garden, too, enjoys not a little shade. That of Fir trees, however, in conjunction with the poor condition of the soil usually existing, is about the worst conceivable, and we are not surprised at the poor results obtained. The plant really delights in rich, moist loam, and some of the finest we have ever seen were grown in this in a Thames-side garden, which in winter was occasionally flooded. Here at flower-time the plants were 15 inches high, the giant sprays and foliage demonstrating that their every need was amply supplied. If you can imitate the above conditions, you need have no fear of failure. The thin shade of Apple trees near by is good; the cold, impenetrable shade of house or wall that to avoid. With rich soil and root moisture constantly assured to the plants, shade may be dispensed with. In the circumstances, you had better leave them alone till September is nearly gone; then dig them up, sort out the biggest crowns, and plant singly a few inches apart. If you make a bed of them in this way, you will have plenty of good spikes in a season or two. It is a mistake to plant these things in mat-like clumps. Planted as suggested, the bed with annual mulchings may remain good for many years.

DAFFODILS IN GRASS BANK (P. J. W.).—We imagine the fault to be with the bank itself, and concerns either its too acute angle or the dryness or poverty of the soil. A large number of Daffodils prefer cool, moist loams, and, given these, are happy almost anywhere, whether in sun or partial shade. In drier soils on level ground the soil requires enriching, and, even so, the greater luxuriance the plant assumes in cooler rooting mediums is not reached. If, therefore, the soil of the bank is naturally dry, or rendered so by excessive drainage or the presence of tree roots, the poor growth of which you complain is easily accounted for. The remedy in such a case is not easy, since moisture—a difficult thing to apply in the circumstances—is the thing most needed from October to May, when root and top growth are being made. Daffodils are deep rooting, and ordinary surface mulchings are of little avail. Liquid manure during the period named might assist materially if possible of application in the circumstances. Basic slag would be of little avail unless dug in. It is also somewhat slow in action. Two sprinklings of sulphate of ammonia—one in November and the other in February or March—might stimulate growth considerably if applied at the rate of an ounce to 2 square yards.

TREES AND SHRUBS.

AZALEA AMENA NOT FLOWERING (M. J.).—The direct cause of the non-flowering is poorness of growth, which may be brought about by unsuitable soil or spring and summer drought, or both. This species delights in a constantly cool root-run, and does not require excessive moisture. A better growth probably would have resulted had the plants been in a bed wholly made up of peat, leaf-mould and sand, ordinary garden soil being little to their liking. In the above mixture and a sunny position, with fair supplies of root moisture during spring and summer, there should be little difficulty in securing a good flowering. Firm planting is also necessary. The Gentian might well be divided and replanted every third year, avoiding a position of much dryness; and if the soil is of a heavy nature, the sandstone of your district, finely pulverised, might with advantage be freely incorporated with it. September and October are the best months for planting, and, apart from firmness, it is important to insert the units right up to the base of the leaves.

RHODODENDRON FOR IDENTIFICATION (Macclesfield).—The specimen sent for identification is *Rhododendron forsterianum*, a tender hybrid raised by crossing two Himalayan species. It gives the most satisfactory results when grown in a quite cold greenhouse or frame which can be well ventilated at all times. During the summer and early autumn the lights can be removed, or, if that is not possible, the plant can be plunged in ashes outdoors in a position where it will obtain a little shade from very hot sun. It should be given a compost of sandy peat, which must be made quite firm about the roots. Repotting is not required very often. When well rooted, cow-manure water can be given once a week with advantage during the growing season. At other times a little cow-manure water can be given every three or four weeks. Keep the plant well syringed, taking care to get the water beneath the leaves, so that insect pests may be kept away. The only time when the house will not require free ventilation is during severe frost or cold east or north winds. A moist atmosphere with moist stages and paths is essential, especially during the spring, summer and autumn. Artificial heat is only necessary to maintain a temperature of 35°. Cuttings may be rooted by inserting them in sandy peat during June or July in a close, shaded frame.

THE GREENHOUSE.

CULTURE OF STREPTOCARPI (Enquirer).—The plants will do best on the shady side of a span-roofed house. They should be freely watered during the growing season and kept moderately dry in the winter. They may be fed in the summer, when the pots are well furnished with roots, either with liquid manure or one of the many plant foods of a chemical nature now so much used. Suitable liquid manure may be made of sheep or cow manure in which a bag of soot has been allowed to steep. This must be well stirred up, and then allowed to settle till quite clear. Care must be taken not to use it when too strong. About once a fortnight will be sufficient to apply the manure. Second-year plants may be had in bloom by May, and by employing successive batches a display may be kept up till the autumn. If the earlier flowers are kept picked off, the display will, of course, be greater when all are allowed to expand. Seedlings of one year that have flowered throughout the summer months may in the autumn be kept somewhat drier than before, and during the winter only enough water should be given to keep the soil slightly moist. An extreme minimum temperature of 45°, rising 10° to 15°, will suit them well. Then about the middle of February or early in March the plants should be repotted, using a compost made up of two-thirds loam to one-third leaf-mould and a good sprinkling of silver sand. For this first potting some of them at least may not need pots larger than, even if as large as, those they have been grown in before. In a rising temperature they will, however, grow freely, and the more advanced will soon be ready for a shift. Good plants may be flowered in from 4½-inch to 5-inch pots, but, of course, the size must be regulated by the vigour of the specimen. *Streptocarpus* are, as a rule, raised from seed sown early in the year

and placed in a temperature of 60° to 70°. From the minute character of the seeds and the delicate nature of the young plants, they need considerable care during their earlier stages. When large enough to handle, they must be pricked off, then potted singly into small pots, and finally—for the first season put into pots from 4 inches to 4½ inches in diameter—they will flower freely in the summer and early autumn. You give us no indication of the condition of your plants, otherwise we might have given more particular rather than general advice, but hope our answer will convey all that you want to know.

FRUIT GARDEN.

MELONS DISEASED (Melon).—Cut out all the affected parts and wash the cut ends of the stems with a rose red solution of potassium permanganate.

PEAR SHOOTS FOR INSPECTION (E. F. S. M.).—Your Pear Louise Bonne of Jersey appears to be attacked by the Pear scab fungus, *Fusicladium (Venturia) pyrinum*. It would be well to spray it with Bordeaux mixture, of half the strength used for spraying Potatoes, as soon as possible, and at intervals of three or four weeks on two other occasions.

PEACH LEAF-BLISTER (Glastonbury).—The Peach is attacked by the Peach leaf-blister fungus, which is usually perennial in the shoots. Therefore all shoots affected should be removed; they are useless, as they never produce good fruit. The tree should also be sprayed with ammoniacal copper carbonate. Protection from cold winds and frosts, which predispose the trees to attack, should also be afforded, and spraying with Bordeaux mixture before the buds burst seems likely to be of considerable value as a preventive of attack.

VINES COLLAPSING AND BLEEDING AFTER BREAKING INTO GROWTH (J. McD.).—We are very sorry for the unfortunate accident to your Vines and the worry it is causing you. The first thing to do will be to try to stop the bleeding. While this is going on we fear it is impossible for the Vines to break into strong growth again. The most likely way to stop it will be by scaring the bleeding parts with a hot iron, and then, while the parts are dry, apply the preparation used in mending punctures in bicycle tyres. Cover this over with oilskin, and bind the whole down tightly with strong tape. It is now too late for grafting on the old wood, but, as you suggest, you may inarch young shoots from your young Vines on shoots of the injured Vines. They may or may not help you; at any rate, it can do no harm. The thing to aim at is to stop the bleeding, and then the Vines will break if there are plenty of well-conditioned roots in the border. The way to inarch young shoots is to cut away a thin piece, about three inches long, from the side of each shoot, and then bring the two cut faces together and bind them down firmly. You will have to stand the young Vines on something solid, because, if they are disturbed, the roots will easily break off.

KITCHEN GARDEN.

ASPARAGUS GROWING WEAKLY (Constant Reader).—The best thing you can do to improve the strength of the grass in your Asparagus-bed is to cease cutting any more of it this year. This will give the plants a longer season of rest and a longer time to form stronger root crowns for next year's crop. Should the remainder of the summer prove at all dry, give your bed occasional waterings of manure-water up to the end of August. You will find that this treatment will improve the quality of your Asparagus next year. The following is a safe and simple system to adopt in cutting Asparagus. Try it next year. Cut all the grass that grows as soon as it is large enough to be useful, including the large, medium and small (even the small is useful) from the time (in April) when it commences to grow until June 16, when cutting must cease altogether. The plants will have time after this to form new root crowns for the following year's crop.

NEGLECTED ASPARAGUS-BEDS (Humble).—Seeing that your grass is weak, you will do well not to cut any of it this season. Let all that comes up grow to maturity, cutting the grass down to within 4 inches of the ground when it is ripe and yellow in the autumn. By doing this you will find that the grass will be stronger next year. If there are any large, bare patches in the beds without roots, dig them up and place two or three seeds in each patch at once. Water the bed once a fortnight in dry weather with liquid manure until the end of August. As soon as the ripe grass has been cut in the autumn and the beds cleared of weeds, dress them over with a covering of well-rotted manure 3 inches deep. The rains during the winter will wash the goodness of the manure to the roots of the plants and help to strengthen them greatly. At the end of March rake off the dry manure on the surface of the beds into the paths between, digging it in. At the same time cover over the beds to the depth of 2 inches with the finest of the soil from the dry paths. Press this soil down and rake over neatly; then scatter over the beds a dressing of ordinary salt or nitrate of soda at the rate of a good handful to the square yard. When cutting-time arrives in the spring, cut all the grass, large and small, when ready, as it comes up, and cease cutting altogether on June 16. All that comes up after that must be allowed to grow, and be encouraged by watering as above. Keep the beds clear of weeds at all times.

MISCELLANEOUS.

THE "GHOST" FLY IN GREENHOUSES (A. K.).—Fumigation with hydrocyanic acid is the best method of getting rid of the "ghost" fly or white fly (*Aleyrodes vaporariorum*), but in many greenhouses it is impossible to adopt this method of destroying the pest. Failing this, fumigation with one or other of the approved fumigants should be carried out, and as some of the larvae will not be killed and all the eggs will escape, the fumigation must be repeated twice more at intervals of a few days.

NAMES OF PLANTS.—M. T.—*Streptosolen Jamesonii*.—*Philippine*.—A, *Spiraea arguta*; B, *Cotoneaster Simonsii*.—*Nemo*.—*Prunus Padus*, the Bird Cherry.—*Mrs. Douglas Pass.*—*Le Murville*, orange scarlet; *Bronze Queen*, bronze.—*Boris*.—1, *Ulmus montanus*; 2, *Populus canescens*; 3, *Cedrus Deodara*.—*W. Y.*—1, Probably *Crinum* species; 2, *Adiantum formosum*; 3, *Sedum Sieboldi*; 4, *Chlorophytum elatum*; 5, probably *Hamanthus* species; 6, *Passiflora cærulea*; 7, *Melissa officinalis* variegata.—*Mrs. E. I., Edgaston*.—1, *Ranunculus aconitifolius* flore pleno; 2, *Alyssum montanum*; 3, *Globularia cordifolia*. As a rule *Sempervivum* may be left alone after planting. But in order to get larger rosettes, all, or nearly all, of the smaller side ones may be removed. Enough, however, should be left to take the place of all that flower, as these die after flowering.—*T. Lee*.—1, *Silene maritima*; 2, *Dianthus cæsius* variety; 3, *Heuchera sanguinea* hybrida; 4, *Saxifraga hypnoides*; 5, *S. muscoides* variety; 6, *Scilla hispanica*.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

The fortnightly meeting on June 8 was one of the most comprehensive held this year. Herbaceous plants were in great numbers and of high excellence, such things as Irises, Pæonies and the sumptuous beauty of the Oriental Poppy predominating. Carnations, as usual, were good; Sweet Peas, Columbines and Snapdragons in perfection. Orchids were not numerous shown, though several good groups and novelties were on view.

FLORAL COMMITTEE.

Present: H. B. May, Esq. (chairman), and Messrs. C. T. Druery, J. Green, R. C. Notcutt, F. W. Harvey, W. J. Bean, G. Reuthe, W. Howe, C. R. Fielder, R. W. Wallace, E. A. Bowles, J. Jennings, J. F. McLeod, R. Hooper Pearson, C. Dixon, J. Dickson, H. J. Jones, A. Turner, J. T. Bennett-Poë, W. P. Thomson, E. H. Jenkins and J. W. Barr.

Messrs. Barr and Sons, Covent Garden, displayed Flag Irises, Poppies and Lupines very finely, the first named in the greater numbers. Of these, some of the more distinct were *I. pallida dalmatica*, *Princess Beatrice* (a fine blue), *Alcazar* (mauve and purple), *Victorine* (violet, splashed white), *Mrs. H. Darwin* (nearly all white), *Queen of May* (rosy mauve), *Caterina* (one of the best of the *pallida* set), *Her Majesty* (reddish lilac) and *Isolene* (the most distinct in reddish falls and rose and white tinted standards). The old *jacquiniana*, in velvety crimson and brown, was also very fine.

Messrs. Allwood Brothers, Hayward's Heath, staged some very good Carnations, of which *Mandarin* (yellow fancy), *Mary Allwood*, *Wivelsfield White*, *Terrific*, *Benora* (white-ground fancy), *Queen Alexandra* (pink), *Lady Meyer* (pale pink) and *Marmion* were among the finer things.

Messrs. Stuart Low and Co., Enfield, showed a fine strain of *Streptocarpus* in many shades of colour, also hard-wooded Heaths and New Holland Plants in variety. *Primula decussata* (rose pink heads) and *Boronia heterophylla* were very beautiful. Messrs. Low also staged a capital lot of Carnations, showing these flowers to advantage on a double table end. *Venus*, *Cleopatra*, *Minerva*, *Diana* and *Mars* of the Perpetual Malmesdon class were very fine, with *Gorgeous*, *Mary Allwood*, *Geoffrey Henslow*, *Mrs. Mackay Edgar* and *Sunstar* of the Perpetual-flowering class. A very handsome lot.

Messrs. Dobbie and Co., Edinburgh, occupied the whole of the western end of the hall with a table of long-spurred Columbines (*Aquilegias*), Sweet Peas and Snapdragons, the latter constituting a superb centre-piece to the whole. Sown in August last, it is doubtful if anything so fine in these flowers has ever before been staged, the cultural skill displayed demonstrating what is possible with so everyday a flower. *Moonlight* (in bronze and gold), *Primrose King*, *Blush Queen*, *Fiery Belt*, *Nelrose* (the so-called Perpetual), *Tom Thumb White*, *Bonfire*, *Amber Queen*, *Maize Queen* and *Golden Morn*—these were a few of the more important in a most imposing group. Sweet Peas, too, were delightful; *Dobbie's Orange*, *Miss Burnie* (fine white), *Inspector* (orange), *Alfred Watkins* (pale blue), *New Marquis*, *Dobbie's Cream* and *Lavender George* *Herbert* were among the most important of these.

Messrs. Thomson and Charman showed herbaceous plants, having a fine central group of *Geum* *Mrs. J. Bradshaw*. *Pæonia lutea* splendens and *Pentstemon heterophyllus* were well shown. *Dianthus sub-acaulis* among alpinas was very pleasing.

Mr. J. Box, Lindfield, Hayward's Heath, had a glorious bank of single and double *Pyrethrums*, of which *Alfred*, *J. N. Twerdy*, *Queen Mary* (pink), *Aphrodite* (white) and *Melton* (crimson) among singles, and *Hamlet* (pink) and *J. Kelway* (crimson) were the best. *Pæonia albiflora*, *P. lobata* *Sunbeam* and *Iris Caterina* were all well staged.

Messrs. Young and Co., Cheltenham, had a nice group of Carnations, of which Cecilia, Carola, Mary Allwood and others were in excellent condition.

Mr. L. R. Russell, Richmond, showed a table of shrubs and evergreens, of which *Plagianthus Lyallii* (a rare white-flowered shrub), *Carpenteria californica*, *Tricuspidaria lanceolata*, *Erythrina Crista-galli* and *Leptospermum Chapmanii* were notable examples.

The Misses Hopkins, Shepperton-on-Thames, showed many seasonable hardy flowers—Geums, Lupines, *Primula sikkimensis*, *P. bulleyana* and others.

Messrs. J. Cheal and Sons, Crawley, contributed *Hydrangeas*, *Ozothamnus thyrsoides*, *Rhododendrons* and others in a showy group of shrubs.

Mr. Charles Turner, Slough, showed standard grown examples of *Bougainvillea glabra* somewhat lacking in colour.

Mr. Clarence Elliott, Stevenage, showed alpines in pots, some of them very charming. Of these latter, *Asperula Gussonii*, *Dianthus woodfordensis*, *Erodium corsicum*, *Campanula Miss Willmott*, *Anthemis Biebersteinii*, with *Sedums* and *Saxifrages*, were very beautiful.

Mr. G. Reuthe, Keston, Kent, showed a variety of hardy plants, alpine, bulb, herbaceous and shrub. *Irises*, *Heucheras*, *Rhododendrons* and *Eremuri* were all in effective groups.

Messrs. G. and A. Clark, Dover, displayed a variety of *Pyrethrums*, *Eremuri*, *Gaillardias* and other good hardy flowers.

Mr. H. Burnett, Guernsey, showed admirable vases of Carnations, the best being *Triumph* (crimson), *Marmion* (very fine), *White Chief*, *Washington* (deep pink), *Carola*, *Mandarin*, and *Mrs. W. B. Clode*, which is highly fragrant. *Enchantress Supreme* was very fine.

Mr. Elisha Hicks, Twyford, displayed an admirable lot of *Roses*, of which *Austrian Copper*, *Princess Mary*, *Irish Elegance*, *Old Gold* and *Beauté de Lyon* were among the best. The new *Chinese Rosa Moyesii* was also shown.

Messrs. Carter Page and Co. exhibited *Dahlias* in several sections, also many *Violas* in variety.

Mr. George Prince, Oxford, had some lovely vases of *Roses*, *Louis Barbier* (rose and apricot) being most charming. *Blush Rambler*, *Harrisonii*, *Austrian Copper* and *Maréchal Niel* were equally handsome and good.

Messrs. T. S. Ware, Limited, Feltham, showed *Pyrethrums*, *Poppies*, *Irises*, and an excellent vase of *Betonica grandiflora superba*.

Messrs. George Bunyard and Co., Maidstone, had a particularly good grouping of *Pyrethrums*, *Oriental Poppies*, *Pæonies* and *Irises* of several sections. *Pæonia The Bride*, virtually a good *P. albiflora grandiflora*, was very handsome. *Iris Rembrandt* (one of the new Dutch *Irises*), *Prosper*, *Langier* and *Jacquinianna* were all very finely shown.

Messrs. H. B. May and Sons, Edmonton, exhibited a table of standard grown *Fuchsias* and Ivy-leaved *Pelargoniums*, with groupings of *Verbenas*, *Hydrangeas*, *Crassula rosea* and other things beneath. *Gardenia radicans* was also on view in many well-flowered examples.

The Hon. Vicary Gibbs, Aldenham (gardener, Mr. E. Beckett), sent an admirable lot of *Streptocarpus* in blue, white, rose, violet and other shades, representative of an excellent strain. A rather comprehensive collection of herbs was staged by the same exhibitor.

Messrs. Waterer, Sons and Crisp, The Arcade, Liverpool Street, put up a long bank of hardy flowers, with a small piece of rockwork forming the centre. At one end, *Pyrethrums*, both single and double forms, were lightly grouped, these leading to *Lupines*, among which were some good pink shades as well as some soft blues. At the other end, *Oriental Poppies* and *Irises* formed a feature, the latter especially being excellent. In the rockwork we noticed *Lewisia oppositifolia*, *Dianthus alpinus albus* and *D. Coed-y-coch*, the latter having large, bright cerise flowers.

Messrs. R. Wallace and Co. of Colchester had a long table filled with a wonderful collection of *Flag Irises*, these including many beautiful sorts, such as *pallida dalmatica*, *Albert Victor*, *Edouard Michel*, *Ossian*, *Rhein Mixe* (white standards and purple falls), *Ma Mie* (a beautiful mixture of pale blue and white), together with several very promising seedlings that were not named.

The small group from Messrs. Whitelegg and Page, Chislehurst, was composed of well-grown examples of *Heucheras*, *Geums*, *Mimulus*, *Saxifraga pyramidalis* and *Dianthus neglectus*.

Messrs. J. Piper and Sons, Bayswater, had a table of alpine and rock garden plants, all well grown and flowered. A fine plant of *Genista sagittalis*, with numerous yellow blossoms, called for special mention.

Messrs. W. and J. Brown, Peterborough, had a small group, which contained some good spikes of *Eremurus robustus* and the large-flowered single, deep pink *Rose Mrs. Rosalie Winch*.

Sweet Peas from Messrs. Bide and Sons of Farnham occupied a whole table length, the flowers being clean, fresh and well staged. Such sorts as *Edward Cowdy* (deep rich orange scarlet), *Orchid* (pale blue) and *Fripled Pink* (a double, highly frilled flower) called for special mention.

Messrs. Cutbush and Son, Highgate, had a miscellaneous group, comprising *Carnations*, *Pyrethrums*, *Irises*, and some exceptionally good *Hydrangeas* with a quantity of a new Ivy-leaved *Pelargonium* named *Radiance*. This has flowers of bright cerise scarlet.

Mr. J. C. Allgrove, Langley, Slough, had a small but interesting group of hardy flowers, many of them rare. *Convolvulus Cneorum*, *Pentstemon glaber roseus*, *Saxifraga Dr. Ramsey*, a fine plant of *S. lanfoscana superba*, *Dianthus neglectus* and *Primula Veitchii* were a few among many of interest.

Seedling *Primulas* of the pulverulenta section were shown by Mr. A. Milner, Totley Hall, Sheffield. These

were exceptionally well grown, and embraced some very good shades of scarlet and orange.

Violas and *Eremuri*, in quantity and excellent quality, came from Messrs. Artindale and Sons of Sheffield. The *Violas* included about 125 varieties, among which were several new ones, notably *Admiral Beattie*, a magnificent violet blue. The *Eremuri* were superb, and reflected the greatest credit on those responsible for their cultivation.

Gloxinias and *Streptocarpus* were shown in quantity by Messrs. J. Peed and Sons of West Norwood. Needless to say, the quality of the *Gloxinias* was excellent, though the plants did not carry quite so many flowers as usual. The *Streptocarpus* were also a very good strain.

Mr. G. W. Miller of Wisbech had a rather dense group of hardy flowers, all of excellent quality. These included *Pyrethrums*, *Oriental* and *Iceland Poppies*, *Heucheras*, the fine *Pæonia lutea L'Esperance* and *Antirrhinum Nelrose*.

The collection of *Roses* from Messrs. George Paul and Son, Cheshunt, was a most interesting one, a great many of the old Scotch *Roses* being included. At each end sprays of choice hardy shrubs were arranged, notably *Viburnum tomentosum plicatum*, *Deutzia discolor grandiflora* and the beautiful pale blue *Abutilon vitifolium*.

Messrs. James Kelway and Son, Langport, Somerset, had a magnificent group of *Pæonies*, *Delphiniums* and *Pyrethrums*, for which they are famed the world over. The single and double *Pæonies* were exceptionally good, but too numerous to mention in detail. *Delphinium Huish Beauty* is a wonderful violet and indigo colour, and *Prince Andrew* a paler combination of bright blue and indigo.

Mr. Amos Perry, Hardy Plant Farm, Enfield, surpassed himself with a wonderful collection of *Irises* and *Oriental Poppies*. Among the former we specially noticed *I. sibirica Perry's Blue*, vivid blue and beautifully netted; while among the *Poppies* were such magnificent sorts as *Iris Perry* (small orange salmon), *Lady Moore* (a larger flower of the same colour) and *Perry's White* (a large white flower with dark blotches at the base).

Sweet Peas were splendidly shown by Messrs. Alex. Dickson and Sons, Hawtmark, Belfast. The flowers were all large, good and clean, such varieties as *Lilian* (soft glowing pink), *Wedgwood* (blue), *Orchid* (soft blue), *Fiery Cross* (bright scarlet), *The President* (rich orange scarlet) and *Constance Hinton* (white) being a few among many very good ones.

ORCHID COMMITTEE.

Present: J. G. Fowler, Esq. (chairman), and Messrs. J. O'Brien, Gurney Wilson, W. Bolton, S. W. Flory, Arthur Dye, W. P. Bound, H. G. Alexander, J. Cypher, J. Charlesworth, T. Armstrong, Walter Cobb, Pantia Ralli, Stuart H. Low, R. Thwaites, F. Sander, R. A. Rolfe, Sir Jeremiah Colman, and Sir H. J. Veitch.

Messrs. J. and A. McBean had a small group of well-grown plants, several fine *Odontiodas* making a bright splash of colour. *Odontioda Lutetia*, with a very large inflorescence, was particularly noticeable.

Messrs. Hassall and Co., Southgate, N., staged some good *Cattleyas*, the plant of *C. Mossie Wagneri* with a large white flower calling for special mention.

Messrs. Charlesworth and Co., Hayward's Heath, had a beautiful lot of *Miltonias* and *Odontoglossums*, the plants being exceptionally well grown and freely flowered. *M. Charlesworthii*, with its large crimson-blotched flowers, attracted considerable attention.

Odontoglossums and *Odontiodas* in considerable variety came from William Thompson, Esq., Walton Grange, Stone, Staffs (gardener, Mr. J. Howes). These were a magnificent lot, and reflected great credit on owner and gardener.

Messrs. Sander and Sons, St. Albans, had a small group composed mainly of *Cattleyas*, with a few *Lycastes* and *Odontiodas*, all being in good condition.

The group from Messrs. J. Cypher and Sons, Cheltenham, was very bright and good, *Odontoglossums*, *Miltonias*, *Cattleyas*, *Odontiodas* and several other kinds being well displayed.

Messrs. Stuart Low and Co., Bush Hill Park, Enfield, had a small group of well-grown *Cattleyas*, some very fine forms being among them.

Cattleya Mossie and *C. M. Wagneri*, with a number of white-flowered seedlings, came from Mr. R. G. Thwaites, Streatham Hill. Several good *Odontoglossums* were also included in this interesting little group.

DUMFRIES AND DISTRICT HORTICULTURAL SOCIETY.

THE prolongation of the war has caused some modification of the show arrangements of this society, which originally comprised a two days' show on August 27 and 28. It has now been resolved to limit the show to August 27, and to hold, on August 28, a sale of vegetables, flowers and fruit for various war funds, including that for the supply of vegetables to the Fleet, a scheme which the society has supported in a practical way since its inception.

SCOTTISH HORTICULTURAL ASSOCIATION.

THE ordinary monthly meeting of this association was held in the Hall, 5, St. Andrew Square, Edinburgh, on the evening of June 1. There was a good attendance. Castle Gardens, president of the association. The paper of the evening, which was written by Miss Frances D. Ash, Liverpool, was read in her unavoidable absence by the secretary, Mr. A. D. Richardson. The subject was "Edges and Edging Plants for Herbaceous Borders." Miss Pollard gave an admirable paper, discussing the important subject in an interesting, practical and suggestive manner. She strenuously advocated the use of irregular

stone edgings for these borders, and gave useful details regarding suitable plants for covering these. She pointed out the capital effect produced by the use of such subjects as *Aubrietias*, *Hypericums*, *Campanulas*, *Alyssums* and the many other dwarf trailing plants which look so well associated with herbaceous borders. Referring to the paths, Miss Pollard spoke strongly in favour of flat stones with dwarf plants in the joints as advisable in preference to those of gravel or grass, the harmony between these and the herbaceous borders being evident. Miss Pollard was heartily thanked for her excellent paper.

Mr. J. W. Scarlett, Sweethope, Inveresk, sent a number of excellent vegetables for exhibition; and from Messrs. Dobbie and Co. came examples of their magnificent varieties of *Antirrhinums*. An interesting exhibit was one of new *Myosotises*, from Mr. Baillie, Eden Gardens, Liberton.

The Fream Memorial Prize.—The Board of Agriculture and Fisheries have awarded a Fream Memorial Prize, of the value of £7 4s. 7d., to Mr. John Wilson, New Road, Mauchline, Ayrshire, a student of the West of Scotland Agricultural College, Glasgow, who took first place in this year's examination for the National Diploma in Agriculture.

Pelargoniums for Winter Flowering.—Cuttings that were rooted in March to provide a display during the dull days of autumn will now be ready for a shift into their flowering pots, which need not be more than 6 inches in diameter. Assuming that they were pinched some time ago, they may be potted and placed at once into cold frames where they will be exposed to the full glare of the sun. Like all other pot plants, they must be carefully watered at the outset, and beyond keeping the flowers pinched off as they appear until August and an occasional watering with weak liquid manure, they may be trusted to look after themselves. By the end of September they should be taken indoors to take the place of the summer occupants of the greenhouse.

The Birmingham Flower Show Cancelled.—The committee of the Birmingham Horticultural Society have very regretfully announced that they have no other course to take but to abandon the flower show which was to have been held in Handsworth Park on July 16 and 17. It is not from any faint heart that the committee make this announcement, but solely because the contractors for the marquees have intimated that no tents will be available in the Midlands for flower shows this season, owing to the requirements of the military authorities. There are many horticultural societies in the district who will be unable to perform their usual functions this year, and at the invitation of the Birmingham Horticultural Society a number of representatives met at the Y.M.C.A. to consider in what way they can make the best use of their organisations during the present crisis. It will be remembered that the united societies last November promoted a successful Patriotic Flower Show, when a substantial sum was handed over to the National Fund. At the meeting on May 31 it was decided to promote a great jumble sale for the provision of funds for securing extra comforts for the wounded soldiers and sailors in the hospitals of Birmingham and district. It is proposed that the sale be held in July, and it is hoped that not only the twenty horticultural societies in the district will take an active part, but also other associations and workers, and thus secure a collection and sale of miscellaneous goods on a scale never before attempted. Mr. William G. Carradine, 36, Hamstead Road, the secretary of the Birmingham Horticultural Society, will gladly send information to all interested in the scheme.

THE GARDEN.

No. 2274.—VOL. LXXIX.

JUNE 19, 1915.

NOTES OF THE WEEK.

An Effective Flower-Bed.—In our garden we have a large bed filled with the beautiful *Aquilegia* hybrids, intermixed with varieties of Spanish Iris. The delicate shades of the Columbines give a very graceful appearance to the bright colours of the Irises. Both of these flowers are so useful for decorating the garden, as well as for cutting, that it seems almost impossible to have too many, particularly as both can be grown with little trouble or expense.

Removing Dead Flowers from Lilacs.—To get the best results from garden varieties of the common Lilac, *Syringa vulgaris*, it is necessary to remove the flower-heads as soon as the blossoms have withered. This enables the bush to concentrate all its energy in forming plump buds for next year's floral display, and also gives the whole a tidy appearance. Few shrubs look more miserable than a Lilac surmounted by rusty looking, dead flower-heads. In addition to removing these, some of the thin, weak wood may also be cut away, to the general benefit of the plant.

Rock Roses for Sandy Soil.

For rocky, sandy banks there are no better flowering shrubs than the *Cistus* or Rock Roses. As will be seen in the accompanying illustration, which represents a bush of *Cistus crispus*, they produce flowers in abundance, usually during the latter part of May, June and well into July. The plant illustrated has flowers of purplish red colour, each nearly two inches in diameter. It attains a height of about two feet, and is hardy except during very severe winters. *Cistus Loretii* grows taller, and has large white flowers with a crimson blotch at the base of each petal. Another beautiful Rock Rose is *C. corbariensis*, which makes a compact, low-growing shrub that during June is covered with white flowers of medium size. *C. purpureus* is a lively species, 3 feet to 4 feet high, with glowing purple flowers, each petal with a crimson blotch at its base. Unfortunately, it is none too hardy.

Iris Maori King.—Among the dwarf Irises suitable for the border or rock garden it would be difficult to find one more beautiful than Maori King. This belongs to the variegata section,

having dwarf tufts of bright green, sword-like foliage, whence the 15 inch high flower-stems emanate. Each carries several blossoms, the standards of which are buttercup yellow. The bold falls are definitely edged with this rich yellow, each bearing at its broadest or outermost part a large patch of dull crimson. As this flows towards the centre of the flower it resolves itself into beautiful crimson-purple venation.

The Moccasin Flower in Dry Soil.—It is generally assumed that the beautiful Moccasin Flower of North America, *Cypripedium spectabile*, needs a cool, moist bed of peat in which to thrive. A plant now flowering in the rock garden at Kew proves that, other conditions being satisfactory,

quite hardy. It makes a rather straggling shrub about five feet high, the slender, semi-pendulous branches of which during early June are clothed with the exceedingly pretty, funnel-shaped flowers. These are pale greenish primrose in colour, with dainty green venation, and cut sprays are most pleasing. The stems are armed with hard, woody spines, and the leaves, which are small and narrow, are of a decidedly glaucous tint. A native of New Mexico and Arizona, it was first sent to this country in 1886. In common with other members of the genus, it will thrive in comparatively poor and well-drained soil.

Seedling Forms of *Cytisus Dallimorei*.—An interesting series of seedlings from this hybrid

Broom were flowering well during the early days of June in a bed near the Rambler Rose Garden at Kew. The hybrid is the result of crossing *Cytisus scoparius andreanus* with *C. albus*, the latter being the pollen parent. Among the seedlings are several bearing flowers with the familiar white, rosy pink and crimson markings of *C. Dallimorei*, one being an improvement on the type. In other cases one colour dominates certain parts of the flower to a greater extent than in the type; some plants have cream-coloured flowers like those of *C. præcox*, but without the objectionable odour of the flowers of that plant; others have yellow flowers rather smaller than those of *C. scoparius*; others, again, are almost identical with *C. albus*; and still others show a considerable variation in habit, with flowers as above. So far as



A FREE-FLOWERING ROCK ROSE: *CISTUS CRISPUS*.

permanent root moisture is not essential. The plant in question is situated on the uppermost ledge of rock, where it is quite happy in a small opening between plants of *Rhododendron ferrugineum*. Mr. Irving, who is in charge of the rock garden, tells us that the plant was put in its present position by mistake three years ago, and has thrived ever since.

An Interesting Hardy Shrub.—Although the common Chinese Box Thorn, *Lycium chinense*, which is found wild in many parts of Great Britain, is a well-known shrub, one seldom meets with Fremont's Box Thorn, *Lycium pallidum*. Yet it is the best of the genus, and has proved to be

can be seen at present, the form with cream-coloured flowers is the most likely one to prove useful in gardens, for, lacking the objectionable odour of *C. præcox*, it ought to replace that plant.

Watering Fruit Trees.—It is important that wall trees which are swelling their fruits should receive an abundant supply of water at the roots, as any lack of moisture at this stage may cause many of the fruits to drop. The soil at the foot of south and west walls soon becomes dry, and under these conditions red spider and other pests are almost sure to make their appearance. Give a good soaking of soft water before the border becomes too dry.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Home-Made Ointments, Soap and Perfumes.

Would it be possible in your valuable paper to give a short article upon the ancient feminine occupations in the still-room, more particularly touching the use of herbs, simple ointments made from the same, soap, toilet articles and cordials; also hints as to how to go about setting up a simple still and working the same? Many a woman who owns a garden would be delighted to revive, for pleasure or profit, many old home-made articles. This practice would largely increase herb-growing and gardening.—M. H. [We have endeavoured to obtain information on the points raised by our correspondent, but cannot secure any definite details. Even "Anne Amateur," with her store of knowledge, states that there are many difficulties in the way of satisfactorily producing ointments, soap and cordials. If any reader can assist "M. H.," we shall be glad to publish particulars.—ED.]

Coronilla glauca as a Hardy Plant.—

The accompanying illustration represents a plant of *Coronilla glauca* growing in the garden of Mr. C. Wakely, Horticultural Instructor to the Essex County Council, at Chelmsford. We are indebted to him for the following particulars of this beautiful yellow-flowered, sub-shrubby plant; which, during Whit-week, we saw growing and flowering freely in quite a number of cottage gardens in Essex, where the cottagers, so far as we could gather, had no idea of its name. "The *Coronilla* in question was planted in a border of gravelly soil nearly four years ago. It has been uninjured by frost during the four winters, and has always flowered well. It is quite 2 feet in height, and rather more in diameter. The aspect is south-east. In the County Gardens I have a larger plant doing well in a peaty soil, and yet another in heavy loam."



CORONILLA GLAUCA GROWING AND FLOWERING OUTDOORS AT CHELMSFORD.

The New Division of the Leedsii Daffodil Classes and a Suggestion.—I was glad to see, in the Rev. Joseph Jacob's remarks in your issue of May 15, that the older and smaller-flowered varieties are to be separated from the newer Giant varieties, I presume like the *Barrii*, as A and B respectively. I wish to point out, however, that among the Giants there are several at present classed as *Leedsii* which, I think, more properly belong to the *Incomparabilis* Division (2B), and I suggest that those who are framing the new classified list of names had better bring the subject up at an early date, as I consider we want some improvements. For instance, I will name two of Messrs. Pearson's raising—Norah Pearson and the Hon. Mrs. J. L. Franklin; and there are others which I consider belong more properly to Division 2B than to Division 4. I will quote from the Official List. The distinguishing character at present reads: "Cup or crown white, cream or pale citron, sometimes tinged with pink or apricot." But the two varieties I have named, in my opinion, have cups not of a citron, but of a decided yellow very nearly as deep in shade as a typical 2B flower, Lady Margaret Boscawen. Lord Kitchener, White Queen, Lowdham Beauty

and Maggie May are typical examples of the Giant *Leedsii*, as each fades to a fairly good white soon after opening. I shall be glad if my remarks lead to some further correspondence, as I consider the moment opportune.—R. MORTON, Woodside Park, London, N.

Notable Magnolias in Westmorland and Southern Scotland.—When recently driving in a motor-car between the head of Ullswater and Penrith—surely one of the loveliest regions in Great Britain—I saw, growing in front of a Westmorland farmhouse, one of the very finest specimens of *Magnolia soulangeana* I have ever beheld. It seemed to be about thirteen feet in height, and was completely festooned with its large and fragrant flowers. The nearest approximation to it I have seen this season was a plant in Logan Gardens, Wigtownshire, of M. Lennei, whose flowers are considerably larger than those of *M. soulangeana*, though it is not so floriferous. *M. conspicua* and *M. stellata*, the latter of which is the most exquisite of all this richly ornamental and intensely fragrant family, also succeed admir-

ably in the gardens at Logan House. *M. Watsonii*, a grandly endowed native of Japan, is at present greatly adorning the centre of the garden at Kirkmaiden Manse with its refined and fragrant flowers. This, along with *M. macrophylla* and other varieties, was presented to me by that consummate horticulturist, Sir Harry J. Veitch, nearly twenty years ago. It is greatly admired and prized by my gifted successor, the Rev. James MacMorland, B.D. I have not yet planted any *Magnolias* in the garden at Kirk House, Kirkmaiden, where I have for the most part confined my attention to the adequate culture of Roses, Oriental Lilies, Violas, Lilacs, *Antirrhinums* and Sweet-Peas; but I cannot doubt that such highly attractive and not too exacting varieties as *M. Watsonii* and *M. stellata* would prove successful there.—DAVID R. WILLIAMSON.

Early Roses.—I live 200 miles north of your Essex correspondent and in a cold district. On a south wall Gloire de Dijon opened its first bloom

on May 20; Reine Olga de Wurtemberg, May 24; Bouquet d'Or, May 26; Ards Rover, June 4; Ards Rambler, June 7; and Lady Waterlow, Climbing Caroline Testout, Noella Nabonnand and Paul Transon were out in the last week in May. On June 8 my children counted 140 flowers fully out (besides which a good many had been gathered) on ten trees. These were all planted in the spring of 1912, and some of them are now over twelve feet high. They are growing in about a foot of soil, with very solid clay beneath them.—WALTER DE H. BIRCH, Walton-le-Dale, Lancashire.

The Plum and Anemone Rust.—Some time ago, in answer to a correspondent in THE GARDEN, you said that Plum rust, *Puccinia Pruni*, had the ascidium stage, or was believed to have, on the garden Anemone. Having a few trees suffering from the rust, I decided to watch for the ascidium on the Anemone, and, curiously enough, found it, but only on the Anemones nearest the Plum trees. There is a drive separating the orchard from the Anemones. The Plums furthest from the Anemones do not have the rust. Some of the spots are, however, not developing ascidium spores, but a coloured mass more compact, and apparently only one very small spore on the end of the hypha. Am I right in coming to the conclusion that it is a species of *Tuberculina*, which Massee says are parasitic on ascidia? I can find no description of the genus in any book I have. There was some correspondence on *Antirrhinum* disease in THE GARDEN a few weeks back. It may interest Mr. Cuthbertson to know that *Septoria Antirrhini* has appeared on a three year old plant here, but only on the growth from last year's wood. This year's young growth is strong and clean. I have bought no seed these eight years. There are no neighbours' gardens for a few hundred yards, so I think in my case the spores must have come a considerable distance on the wind.—JOHN STALEY, Hayling Island, Hants. [The connection between the ascidium on Anemone and the Plum rust was discovered in Russia and confirmed by F. T. Brooks in this country. It is probable that if Anemones were removed from the garden, Plum rust would disappear too. The other fungus is probably *Darluca filum*, a parasite on species of ascidium. The proper name of the fungus on the Anemones is *Puccinia Pruni spinosa*.—ED.]

Undesirable Plants.—It has been interesting to see the opinions of your correspondents on this subject. In a few cases it would appear that a plant may be a weed in one garden and a welcome inmate in another, though probably all are agreed as to a few, such as Winter Heliotrope, Goutweed and *Campanula rapunculoides*. These are my own special objects of dread, the *Campanula* being the worst of all, as it will suddenly appear in new places without any apparent reason. *Cerastium*, which figures in the black list of one of your correspondents, is no trouble with me; but one plant that I think has not been named would be prized for its beautiful bloom, were it not for its troublesome persistence and unconquerable invasion. This is *Ornithogalum nutans*, whose handsome spikes of white and grey-green

blooms of satin-like texture are so good and long lasting as room flowers in water. A patch of Goutweed, if not harbouring among the roots of neighbouring bushes, I could undertake to get rid of, though perhaps not in one season; but the Ornithogalum, when once established, I have found to be quite ineradicable. Even if all flowers are removed to prevent seeding and if, as one thinks, every bulb of a patch is dug up and the soil passed three or four times through one's fingers, it will appear again in the same place, the patch always spreading. I have even, when there was a clump of about nine inches in diameter, dug it up with a barrow-load of the surrounding soil, only to find it growing again the next year. I have sometimes thought it possible that tiny broken pieces of the white underground leaf-stem may grow into bulbs. In any case, in gardens where it is troublesome, where it is continually persecuted and yet always comes again, the way to deal with its persistent vitality and constant increase is a baffling problem.—G. JEKYLL.

The Cutting of Flowers.—I divide gardeners into two great classes—(1) those who like to cut flowers, and (2) those who do not like to cut flowers. If the first class are let entirely loose in a garden full of flowers, by the evening possibly all the flowers will have been cut; but if the other class of people own the garden, they will never cut or allow flowers to be cut if they can help it, and the flowers will die on the plants. I think perhaps a word or two of advice is needed for both parties. As we all know, "a garden is a place for flowers," so those who do not like cutting them say, "Why cut them and let the garden look bare?" Quite so. I agree that if a garden devoid of flowers is to be the result, it is a pity generally to cut them. But in the first class of gardeners (those who like cutting flowers) there are people whose minds are endowed with a good deal of common sense, and whose powers of observation and reasoning may be even greater than those gardeners of the other class. They say: "If we cut flowers, a bare garden does not result, and if it did, we would still do the same thing. For flowers are generous beings. If you cut all the flowers of plants such as Lupines, Pyrethrums, Inulas and many more, in a day or two you will have another crop. But what we do is to cut flowers fairly generously, leaving some on to adorn the garden and keep it gay; but we never hesitate to cut and give away large bunches during the season when the garden is bursting with flowers, for with one or two exceptions the more we cut the more we get." Is not this reasoning sound? Of course, the flowers themselves last longer if they remain on the plants, but not nearly so many are obtained or such a long succession as if they were cut.—E. T. ELLIS, *Weetwood, Ecclesall, Sheffield.*

FORTHCOMING EVENTS.

- June 22.—Royal Horticultural Society's Exhibition of Flowers, Plants, &c., 1 p.m. to 6 p.m. Admission 2s. 6d. Fourteenth Masters Memorial Lecture at 3 p.m. by Dr. E. J. Russell, D.Sc., on "Recent Investigations on the Production of Plant Food in the Soil." Royal Horticultural Hall, Vincent Square, Westminster.
- June 23.—Croydon Horticultural Society's Show.
- June 24.—City of London Rose Society's Show, Cannon Street Hotel, London, E.C., 1 p.m. to 7 p.m. Proceeds in aid of British Red Cross

LIFTING AND STORING DAFFODILS AND TULIPS.

BY THE REV. JOSEPH JACOB.

"TO every thing there is a season, and a time to every purpose under the heaven." What more appropriate motto or quotation could be put over a garden entrance than these words of the author of that famous book of common sense, Ecclesiastes? The doing of this operation or that at just the right moment makes all the difference in the world in so many things connected with horticulture. Sometimes Nature's times and seasons are of very limited duration, sometimes it is otherwise.

Lifting Daffodils.—Among the otherwisely may be put down the lifting of Tulips and, in a more restricted sense, the lifting of Daffodils. If I

allowed to be formed and the bulb is *then* lifted and dried off, the plant is considerably weakened, and shorter growth and smaller flowers will be the result next spring. If the number to be lifted is very great, it is much the wisest plan to begin too soon rather than leave it until too late, when new roots are in full growth. If at getting-up time the foliage is still more or less green, it makes practically no difference whether it is at once cut off 2 inches or 3 inches above the bulbs or whether they are dried off with it on. But in the latter case they must be spread out *very* thinly, to allow the drying process to go on. The foliage of some varieties is almost evergreen. Maximus and some of the Poetaz section are examples. We now take these up with the others, but leave them as much as possible until the end, and find that this treatment works very well.

Lifting Tulips.—Tulip bulbs are unlike those of Daffodils, as there is in all cases, as far as I



OLEARIA INSIGNIS SHOWN BY MR. R. C. NOTCUTT IN LONDON LAST WEEK. (See page 306.)

were asked to be precise and state a time limit when all Daffodils should be lifted, I would say between June 15 and July 15. But latitude and longitude, soil and season, variety and situation, are all determining factors which generally show their influence in the state of the foliage. When it begins to turn yellow and to lie flat and limp upon the ground, the signal for us to think about taking them up has been given, and after a week's delay, to make sure the ripening process has been carried far enough, lifting should be begun. In the majority of cases there is a distinct period before any new roots are made, but with the Poet section there is probably none. Lift a Homer or a Horace when you will, roots of all ages are sure to be seen. Hence it is a safe rule to begin with the Poets, because if there is any pause in their emission, it seems to be just when the decay of the foliage is rapidly being accomplished. If in ordinary varieties new roots are

know, a distinct period during which the new mature bulb is naturally without roots. I am unable to say the precise time when in a surrounding of damp soil they will be emitted, for only a somewhat elaborate experiment would tell us this, and we never seem to have time to make it. Without this I would say the last week in August. This makes, however, little or no difference to the subject under discussion, for in all private gardens, where at the most it is thousands and not acres that have to be dealt with, the whole lot of bulbs should be easily got up before July is over, even if for some exceptional cause the ideal time limit, which is the same for Tulips as for Daffodils, has been exceeded, viz., mid-June to mid-July. There is a double test to be employed to be sure the right moment has come—first, the obvious one of the foliage, which must be *very* yellow and limp, or quite dried up and shrivelled; and, secondly, that of the bulbs,

which must be just beginning to brown over. The only way to be sure about this latter fact is to lift two or three. I mention it because sometimes the foliage, having been attacked by a fungus which is usually spoken of as "fire," prematurely decays, and anyone with no experience to guide him might think lifting could safely be begun earlier than it ought. On the other hand, if bulbs are left too long in the ground after they are ripe, it is invariably found that the outer skins, which then will have become quite brown, will be very tender, and as likely as not they will be

until they are partly dry, more particularly in wet seasons and in the case of Daffodils. After a time they may be put closer together, but they require constant watching to see that the drying is going on satisfactorily.

Tulips should not be left out on the beds or exposed to the weather, but should at once be put in boxes or trays. In the case of Daffodils, they may be left out of doors, if guarded from the hot sun, for a week or ten days with no detrimental results; in fact, considerable experience suggests that there may be an actual benefit in it. It is

A BEAUTIFUL AMERICAN RHODODENDRON.

RHODODENDRON VASEYI is a very beautiful and distinct species. It belongs to the deciduous group of the genus, and is included among the several kinds which are often referred to under the generic name of Azalea. It is found wild in the mountains of Carolina, but differs considerably from the other American species in the shape of its flowers, the corolla being less distinctly tubular, with petals of more uniform shape. The blossoms are also less fragrant than those of other species. It escaped notice for many years after the other American kinds had been introduced to this country, and is said to have been originally brought to notice by Mr. G. R. Vasey in 1878, its first appearance in this country being about 1891. In its native country it exceeds 12 feet in height; here it grows very slowly after it has attained a height of 3 feet or 4 feet. There is every reason to believe, however, that it will grow as large as the ordinary Ghent Azalea, while it forms a shapely bush with little attention to pruning. The flowers are borne in small, terminal heads in early May, each blossom being from 1½ inches to 1¾ inches across. They may be of a clear pink colour, or white shaded with pink. From the age of three or four years flowers are borne with great freedom, and a glance at the accompanying illustration will give an excellent idea of its beauty when planted in a group. The photograph is of a bed in the Azalea Garden at Kew. Although this species does not appear to have been used by the hybridist, it is likely that it might be used with advantage for crossing both with the American and Asiatic kinds.

W. D.

ALYSSUM SPINOSUM.

THIS attractive plant is quite unlike the other members of this useful genus of plants as represented by the well-known *A. saxatile*. It forms a sub-shrubby, densely branched bush up to a foot or more in height, covered with hoary foliage composed of small leaves. During the late spring and early summer months the flowers, varying in colour from white to pink, are very freely produced. At all times of the year this plant, owing to its almost evergreen character, is very effective, and an ideal subject for massing in a prominent position such as that shown in the illustration on the next page. *A. spinosum* grows well in almost any loamy soil which is thoroughly well drained. It produces seed freely, and self-sown seedlings may be found in abundance round about old plants. These will produce flowers the following spring, and in a few years make quite a dense carpet. The plants shown in the illustration are three years old from seed. It is a native of Southern France and Spain.

W. I.



RHODODENDRON VASEYI, A LITTLE-KNOWN SPECIES FROM CAROLINA.

ruptured, so that they soon fall off and we get nothing but those rather uncanny-looking dead-white bulbs which all Tulip growers know so well. This peeling should be avoided, because not only is the naked bulb more prone to shrivel when it is minus its top-coat, but it is much more tender with no natural protection, and so more liable to be damaged in transit. As May-flowering Tulips are now more and more being used in bedding arrangements, they have frequently to be lifted before their natural time. In this case they must be carefully got up without damaging the roots or the foliage, and either laid in by the heels or spread out (leaves, roots and all) thinly under a north wall out of the reach of the sun. In this latter case they will suffer slightly, but I am assured that if another year the flowers are only to be used for cutting, it makes very little practical difference. I saw an instance of this in operation this year at Maer Hall, Staffordshire, where the head-gardener told me it was his annual practice. The idea was new to me, but as it worked I pass it on.

Storing Daffodils and Tulips.—An airy shed or room is essential when a quantity have to be dealt with. The bulbs, too, must not be piled up on top of one another to any depth. Three or four deep is quite sufficient, at any rate

said a few "difficult" varieties should invariably be got up a little *prematurely* and left on the beds for ten days to ripen. I have tried it, but not extensively enough to pronounce any verdict. Where a quantity have to be stored, shallow wooden trays with legs, the wrong way up, are very good. They can be made of any convenient size, provided the upright legs are long enough to allow a free passage of air when the trays are piled up on one another. The final cleaning must not be attempted too soon, for, if the roots are not easily removable, in the case of Daffodils the base of the bulb is apt to come away when they are being taken off, or with Tulips the brown skin may be ruptured.

Summary.—Enough has been said to show the general practices underlying lifting and storing. It only remains for everyone to cut his coat according to his cloth. Bulbs should not be taken up until their foliage has withered. When this has happened, they must not be left too long in the ground, in case new roots should be formed, the loss of which will weaken them for another season. Store in a dry, airy place out of the reach of direct sunlight. See that they are not heaped up too thickly. Turn them every now and again, especially if they have been put away damp. Try to preserve the brown skins.

INFORMAL AND WILD GARDENING.

BY JAMES HUDSON, V.M.H.

(Continued from page 292.)

The Formal Pruning of Shrubs.—I ought to draw attention to this most stupid system, though it is practised more, I think, in public parks and gardens than in private places. There is an old saying that there is "a time for doing everything under the sun," meaning that there is a right and a wrong time. With shrub pruning the late summer and autumn appear to be considered right. Then it is that this "tidying up" is proceeded with. Then it is that flowering shrubs are oftentimes denuded of shoots and branches which would otherwise add beauty to the coming season. Then it is that one often sees the Flowering-Currant (*Ribes sanguineum*) carefully pruned into the correct shape; also *Forsythia suspensa* and *F. viridissima*, to say nothing of the Lilac or of *Jasminum nudiflorum*. Nothing is, I think, more beautiful in March or early April than the *Forsythias* when treated informally. If pruning is needed, do it by all means, but let it be immediately after the flowering stage is over; in no instance should any shrub be clipped over in a rigid, formal manner.

Informal gardening is beyond any dispute more economical in every way. Not only is this the case as regards the actual amount of attention needed, but also in the preparation of the material for planting out. There should not be any hard-and-fast time for "bedding out," as it is termed. The arrangement should be such that the vacant spaces—either beds or borders—should not be actually bare of plants at any time, bearing in mind the due provision of stock to take the place of such as may be exhausted.

I have just used the word "beds." Let me say at once that I do not favour beds as compared with borders, *i.e.*, marginal borders to shrubs and the like. Rather let the one join insensibly on to the other. Do not let geometrical design be considered as any ornament in itself; better dispense with it entirely. Get rid once and for ever of all idea of formality and then try to imitate Nature, or rather work in accord with Nature. It is not easy in many cases to do this, but an effort should be made in that direction. Then, having made a start, we may feel greater confidence in extending in the immediate future.

It may be asked, "How and where would you commence to treat a garden in an informal manner?" I would start immediately contiguous to the house itself. The building itself would be of a formal character, not necessarily square or rectangular, but probably straight lines will prevail. With these one cannot associate curves, as regards beds, so as to be in harmony with the surroundings. I would therefore start away at once with the lawn, and if any planting be done near the building, let it more or less follow the lines of the building. I would not permit any terraced walks of gravel to obtrude, so to speak, on the

view. Personally, I favour a verandah on two sides at least; here an excellent opportunity is afforded of furnishing the walls with rather choice and possibly somewhat tender wall plants. It may be said, "Why have but few gravel paths?" My reply is, we often have too many of them. Paths add to the expense of upkeep, as all gardeners know. Rather expend the same amount of labour in actual cultivation, is my advice. I would in any case dispense with broad walks, and the sooner these are lost to view from the house, the better as regards effect. Let the lawn near to the house be the chief feature, with plants or shrubs of divers kinds dotted thereon. This planting should be done quite informally. Let the grass be kept closely mown for a reasonable distance away from the house. Then I would break away into a semi-wild style of gardening with the grass cut only once or twice in the year. Paths to suit the exigencies of the case will have to be arranged. Let these be of grass wherever possible and only sufficiently wide for two, or at the most three, to walk abreast. Such paths may curve according to the position and levels, but straight paths are inadvisable, *i.e.*, straight for any great distance. In a garden so treated there will be a great saving of labour in upkeep, such

shelters from the most harmful winds, notably the east and north-east. Deciduous trees act as a great break to keen, cutting winds, but I like to have some Fir trees as screens. Where no such screens exist, some should be provided, whether the garden be formal or informal. My advice was once asked anent this for a most exposed position on the East Coast. I advised the planting of Canadian Poplars. These grew well and afforded shelter to the Austrian Pines, and the latter formed the screen so much desired, and then gardening in a most successful manner was accomplished. Of course, it takes a few years to do all this.

It is only natural that I should be asked, "What is your idea of an 'informal garden'?" I will give one or two examples. First, I will allude to the Wisley Gardens of the Royal Horticultural Society. These afford an almost unexampled illustration of informal gardening, in the combination of the Wild Garden and the Rock Garden with their immediate surroundings. But it may be said there is no mansion at Wisley. True, but if such were built upon the higher ground, it would be an ideal example in every respect, healthy beyond any question, with splendid views and the informal gardens at one's feet, so to speak.



ALYSSUM SPINOSUM IN THE ROCK GARDEN. THIS PLANT IS EASILY RAISED FROM SEED.

as in sweeping, mowing, rolling, &c. No drains will have to be provided, as in the case of gravel paths, to drain off the water in order to keep them dry. With grass paths the water will soak away into the soil and be a benefit, as it should be, to the surrounding vegetation.

In the distance let the arrangement be such as to make foreground and background merge insensibly together. Do not attempt to shut out the view if it be such as one could wish. Where trees exist, let the idea be to blend all new planting with them. They may be most invaluable as

First you have the Rock Garden with the open informal garden on the east, backed up by the fine avenue of Bamboos, and the Water Garden where the *Nymphæas*, *Iris Kämpferi* and *Gunnera manicata* luxuriate. Next to these is the Wild Garden amid the shelter of the trees, a garden of the woods, a type of gardening of which more use should be made. To my mind this is the most enjoyable part of the Wisley Gardens. Onward towards the river there are ideal types of herbaceous gardening. Where the trials are conducted it must of necessity

be of a formal character for greater facilities in working. When Mr. G. F. Wilson—a keen and thorough gardener—took over this property he had an undoubted knowledge of the soil, the surroundings, and the capabilities of the estate, and of the shelter afforded. In any garden these are essentials of the first consideration, for it is far better to be able to assist Nature and take advantage of every favourable position as to soil, shelter, &c., than it is to fight against Nature and try to accomplish what is well-nigh impossible. Wisley Gardens, open as they are to all Fellows of this society, should not be merely visited from time to time, but the ideas there carried out should be studied carefully. In this way it would be possible to carry away in one's mind some practical suggestion from each part of it. Note, for instance, in the early spring the lovely effect produced by *Narcissus cyclamineus* in its moist,

FRIAR PARK REVISITED.

At whatever time of year Friar Park may be visited, an unfailing source of interest and pleasure awaits us. All that is choicest and rarest can be seen established and thriving, and old acquaintances flourishing almost beyond recognition. I was especially impressed the other day by the magnificent bush of *Daphne caucasica*, nearly 8 feet through and the same in height, growing in the Alpine Garden. One of the stronger plants of the genus, the beauty of its glistening white flowers is enhanced by the tender green foliage which appears with them. Like most *Daphnes*, it is deliciously fragrant. *Haberlea virginale* was another triumph of cultivation. A large colony ensconced upon

than he ever anticipated. Her Majesty Queen Alexandra, whose love of flowers and gardens is well known, visited the gardens for the first time last month, and was so enchanted that she repeated her visit the following day.

E. WILLMOTT

FOXGLOVES AND THEIR CULTIVATION.

ALTHOUGH the ordinary wild Foxglove *Digitalis purpurea*, is regarded by many as a common plant, unworthy of attention from a gardening standpoint, there are a great many who rightly hold different views. Certainly it is not a subject that one would select for a choice border, but for open spaces in the woodland, between newly planted shrubs, or in an odd, shady corner where little else will grow, it is really a most serviceable plant, and one that is likely to find numerous admirers for generations to come. Useful as the wild plant is for the purposes named, it is far surpassed in beauty by the modern garden strains that seedsman have given us in recent years—plants of bolder appearance with larger and brighter coloured flowers, while some have blossoms of almost pure white and others of pale yellow. These are certainly worthy of room in the best of borders or large lawn beds while, if desired, they can be utilised for naturalising in the wilder parts of the woodland, though, I must confess, I think the wilding better for the latter purpose.

Fortunately, the cultivation of Foxgloves does not call for a great deal of skill. They are usually treated as biennials, *i.e.*, seeds are sown one year to produce plants for flowering the next, the time for sowing being during May and the early part of June. No time should, therefore, be lost in getting the seeds in, where this has not already been done. I prefer sowing them outdoors, in drills a foot apart, first seeing that the soil is in a thoroughly pulverised condition. Each drill should be watered before sowing the seeds, and half an

inch of earth is ample covering. When about two inches high, the seedlings must be transplanted separately 9 inches apart in rows 15 inches asunder, preferably in soil that has been deeply dug and well manured. Here they will remain until the end of October or early November, when they can be put in their permanent positions.

The largest will flower during the summer of next year, but the smaller ones will probably continue to make leaves without producing blossoms. They will be magnificent plants for the summer of 1917. When naturalised and allowed to seed themselves, the plants are, of course, very small by the end of the autumn, and certainly will not be large enough to flower the next summer, though by the succeeding year, like the small ones specially raised, they will be excellent specimens.



A BEAUTIFUL GROUPING OF HYBRID PINKS IN THE ROCK GARDEN AT FRIAR PARK, HENLEY-ON-THAMES.

sheltered situation—one of the gems of the entire garden. Again, the Japanese Iris (*I. Kämpferi*) in early July is well worth a visit; this Iris is in an ideal spot, and it associates so well with the *Nymphæas* and the *Gunnera manicata* in the background. *Primula japonica* in varied colours, as well as other species of *Primula*, thrive amazingly in the ditches and sides thereof. Further in the wood are to be found many examples of *Lilium giganteum*, as well as other members of the same genus. I have at no time seen *L. giganteum* growing and flowering so finely as at Wisley. Many Ferns are also growing most naturally and luxuriantly in the wood and on the outskirts of it. The *Rhododendrons* and *Azaleas* are very fine in their season. I have only enumerated a few of the features in this beautiful spot.

(To be continued.)

a sheltered rocky ledge was luxuriating as though an ordinary plant of easy culture. *Primula Allionii* was growing just as I saw it in its native habitat near the Col de Tenda. *Pentstemon Scouleri* was in glorious masses such as I had never seen before. It is always a beautiful plant if well grown, but not always contented with its treatment.

All visitors are welcomed, from the highest in the land to the poor East-Enders, who spoke of his visit to Friar Park as the red-letter day of his life, adding that "everything kind of had a meaning like." The purpose of the garden is so aptly set forth upon the Stone of Precation:

"Most for thy pleasure

The gardener toiled to make the garden fair." The gardener knows he has achieved his aim; the pleasure he wished to give has extended far and wide, and the kind wish has been realised perhaps to a greater and more far-reaching degree

Although not fastidious as to soil, there is no doubt that Foxgloves appreciate a cool root-run and one that is fairly well enriched with manure. In such they will produce long, handsome spikes of flowers far in advance of those borne by plants growing in soil that is dry and deficient in nutriment. Partial shade is also appreciated by them, though by no means essential to their success. Mention has already been made of the improved garden varieties, including the white-flowered one, which is the most beautiful of all. A monstrosity often met with is named *gloxiniæflora* or *monstrosa*. At the top of the flower-spike one, or sometimes two of the blossoms have become much enlarged, and in shape resemble the flowers of the ordinary Canterbury Bell. This has given rise to the absurd supposition that the plant must be a cross between the Foxglove and the Canterbury Bell.

A. B. ESSEX.

HERBACEOUS CALCEOLARIAS.

AMONG those plants that are usually raised from seed annually for conservatory decoration, none is more worthy of attention than the above free-flowering race of Calceolarias. When well grown and lightly set up against a background of greenery, they present a charming picture. They are rather exacting in their requirements, but when these are understood the result is never in doubt. Cool treatment is essential at all times, but they will not succeed in a dry atmosphere. During the shortest days, when the temperature of the house ranges between 40° and 50°, very little damping down suffices for their needs; but from February onwards they are in full growth under warmer conditions, consequently more moisture is necessary.

Sowing the Seeds.—From the middle to the end of June is a suitable time to sow seeds to produce plants for May flowering. Whatever receptacle is used, it should be well drained and filled with light, sandy soil. Should it be necessary to give water before sowing, partially submerge the pot or pan in water. Sow the seeds as thinly as possible, sprinkle a little fine sand over them, cover with a sheet of glass, and remove to a shady corner of the greenhouse to germinate.

Treatment of Seedlings.—About eight days will elapse before the seedlings appear. The glass may then be dispensed with, followed by gradual exposure to the light; but on no account expose them to strong sunshine or allow them to need water. In the seedling stage they are rather slow-growing, but when they have made

their second pair of leaves prick them out, 2 inches apart, into boxes, and keep them close and shaded in a cold frame until established. With the majority of seedlings it is usually safe to discard the smallest; but in this case it is not advisable, as these will eventually turn out to be the brightest

Potting On.—The next potting will be in August or September, according to the strength of the plants, and in most cases 5-inch pots will be large enough for the strongest, while for those less robust a size smaller will suffice. In these pots they will pass the winter. A compost of three



A WELL-GROWN COLONY OF WHITE FOXGLOVES.

coloured and none the less robust for being backward in the early stages. When ready, pot them into small pots, and give them every attention, for no plants are more impatient of neglect, but, at the same time, none respond more readily to generous treatment.

parts loam to one of leaf-mould, with a sprinkling of wood-ashes and plenty of coarse sand to keep the soil porous, will be found suitable. Avoid hard potting and keep them close for a few days, with plenty of moisture around them, as well as shading on bright days until they have recovered

from the check; but afterwards endeavour to promote sturdy growth by carefully attending to watering and ventilating, for the more fresh air is afforded them, so long as their surroundings are moist, the better will they flourish. Green fly is their worst enemy, and must be kept in check with the aid of a good insecticide.

Winter Treatment.—Early in October remove the plants indoors, placing them in a light position on some moisture-retaining material if possible, and where they can benefit from fresh air whenever the outside conditions favour its admittance. Very little water is needed during the short days if the atmosphere is not kept too dry in the temperature previously given.

The Final Potting.—Early in February the plants commence to grow more rapidly, and towards the end of the month they may be potted in their flowering pots, the strongest into 7-inch and the lesser ones into 6-inch pots. These should be well drained with clean crocks. Over these put a thin layer of rough soil and lightly cover with soot. The compost may have rather more loam in it at this stage, with the addition of a little well-decayed manure. A sprinkling of some artificial manure will also be beneficial. But porosity must be aimed at above everything, in order to encourage a vigorous and free root action. Coarse sand liberally used generally suffices, but, failing this, crushed brick should be used. In potting, avoid injury to the roots, and on no account ram the soil too hard, or the roots cannot run freely. Water carefully for a time; but when the plants are growing freely, see that they are kept moist and freely syringed overhead on bright days.

F. J. TOWNEND.

*The Gardens, Brentwood,
Moorgate, Rotherham.*

NEW AND RARE PLANTS.

FIRST-CLASS CERTIFICATES.

Odontoglossum St. Vincent (*O. gandavense* × *O. amabile*).—The sepals and petals have an exceptionally dark ground, and are tipped with rose, which is in good contrast with a small yet pronounced white lip.

Odontoglossum Princess Mary.—A very handsome variety with tall spike. The flowers are heavily blotched chocolate, distinctly bordered white, with white lip and yellow crest. These two very handsome novelties were exhibited by J. Gurney Fowler, Esq., Pembury, Kent.

Cypripedium Curtisii Sanderæ.—This is regarded as a new albino form, and is very distinct. The pouch is pale green, sepals green and white, with slight spiral twist, the well-proportioned dorsal sepal greenish with white lines. It has the

mottled leaves of *C. Curtisii*. Shown by Messrs. Sander and Sons, St. Albans.

AWARDS OF MERIT.

Odontoglossum crispum Perfect Gem.—A white-flowered form marked with faint and comparatively small reddish blotches. From W. Thompson, Esq., Walton Grange, Stone, Staffs.

Cotyledon simplicifolia.—The spatulate leaves are not unlike those of a small *Lewisia* *Cotyledon*, above which, at 6 inches or so high, the racemes of drooping yellow flowers appear. From Miss Willmott, Warley Place; and Messrs. Waterer, Sons and Crisp, Twyford.



THE NEW POPPY PERRY'S PIGMY, SHOWN IN LONDON LAST WEEK.

Delphinium venustum.—A deep blue flowered kind raised from seeds sent from India. Its value lies in its early (May) flowering and the intensity of its almost gentian blue flowers. From Miss Willmott.

Primula Lady Bird.—One of a series of a second generation of crosses which first originated between *pulverulenta* and *bulleyana*, the resultant seedlings being then selfed and recrossed with the first named. The habit is that of *pulverulenta*, the flowers rich rose with orange red centre. From W. A. Milner, Esq., Totley Hall, Sheffield.

Oxytropis hybrida grandiflora alba.—A very handsome plant with long, Lupine-like spikes of white flowers. It is 2 feet high.

Aster alpinus Nancy Perry.—A mauve-coloured variety of this eminently useful species.

Papaver Perry's Pigmy.—A charming Poppy 18 inches high, with flowers of rich pink. These three novelties were from Mr. Amos Perry, Enfield.

Dianthus woodfordiensis.—A hybrid alpine Pink between *D. alpinus* and *D. deltoides*. The flowers are pink with light crimson zone, and in size intermediate between the parents. The glossy *D. alpinus* leafage is much in evidence. From Mr. Clarence Elliott, Stevenage.

Iris Lohengrin.—This is one of the most beautiful and distinct of the *pallida* set. The flowers are coloured rosy mauve. A variety of merit and distinction, possessed of a fine stature. From Messrs. Wallace and Co., Colchester.

Dianthus neglectus Aurora. This might well be described as a glorified *D. neglectus* of nearly 6 inches high. Flowers rose coloured with dark zone. The long, green, narrow leaves are quite distinct. From Mr. R. Malby, Woodford.

Olearia insignis.—A New Zealand plant with white flower-heads and woolly clothed stems. In the young state the leaves are white or hoary, the older leaves being dark green and buff coloured below. A handsome and strikingly beautiful plant. Shown by Mr. R. C. Notcutt, Woodbridge. See illustration, page 301.

Rose Yellow Bird.—Obviously a beautiful and profuse bloomer. The flowers are white with creamy base. From Mr. Charles Turner, Slough.

Iris Lord of June.—A good addition to the *pallida* set. The standards are lavender; falls violet with gold crest. From Mr. George P. Baker, Bexley.

Iris Rotherside Masterpiece. A bulbous kind approximating in vigour, size of flower, earliness and stature to the so-called "Dutch Irises." The standards are white; falls yellow, finely blotched gold. The texture of the flower is very remarkable. From Mr. F. H. Chapman, Rye.

Micromeles Folqueri.—The white flowers are produced in sessile bunches like many of the *Cratægus*. The ovate leaves are green above and silvery below.

Lonicera Maackii.—A bushy kind having large white, and later buff-coloured flowers.

Syringa Sweginzow.—The rather frail and twiggy growths of this distinct kind are terminated by lax trusses of equally frail-looking, though elegant lilac-coloured flowers with white lobes. These three novelties were exhibited by the Hon. Vicary Gibbs, Elstree (gardener, Mr. E. Beckett).

The whole of the foregoing plants were exhibited before the Royal Horticultural Society on June 8, when the awards were made.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Late Peaches.—The final thinning of the fruits may now be done. Young trees which are inclined to grow too strong can be allowed to carry a heavier crop than old-established ones. This will tend to keep strong growth in check. Give plenty of air both day and night, and thoroughly drench the foliage twice a day to keep it clean. Carefully tie the young shoots to the trellis, and bear in mind when doing this work that the fruits must be well exposed to the light.

Late Figs in Pots.—Where good fruits are required late in the season, it is an advantage to grow a number of trees in pots for the purpose. These can be retarded by plunging the pots in ashes behind a north wall. Watering must be done with great care, and stimulants should be used sparingly till the roots and growths are plentiful. Keep lateral growths well thinned out, so that plenty of light and air may reach the fruits.

Plants Under Glass.

Clerodendron fallax.—Young plants raised from seed must not be checked through neglect in potting when they are ready. A rich compost should be provided, and when well rooted plenty of stimulants are necessary, as the plants are gross feeders. Give them plenty of room to develop their large leaves, and towards the final stages of growth the plants will benefit by cooler conditions.

Plumbago rosea.—This beautiful plant requires liberal treatment during the growing season. Old plants must be liberally supplied with stimulants. Plants rooted in the spring will now be ready for shifting into their flowering pots. Six-inch pots will be ample in which to flower them.

Zonal Pelargoniums.—The plants which have been propagated for winter flowering must now be placed in a sunny position outdoors. Plunge the pots up to the rims in ashes. When well rooted, liquid manure and soot-water may be given alternately. Stop extra strong growths and keep the flower-buds removed till the plants are required to flower.

Salvia splendens.—When ready for their final shift, no time should be lost in potting them on, as neglect in this will cause the lower leaves to fall. Give them a rich compost, and, when potted, afford water with care till they have made plenty of fresh roots.

The Flower Garden.

Annuals.—Where these were sown in the open, the young plants will require to be liberally thinned. This must be done more or less in accordance with the characteristics of the different species. Generally speaking, annuals sown outdoors are usually left too thick, thus spoiling the best effect. Moreover, plants which are too crowded will not last in flower as long as those which have ample room to develop their true character. The staking of the plants must also be timely attended to.

Bedding Out.—While the work of bedding out is in progress, those plants which have already been put out must not be neglected in the matter of watering. Well-rooted plants will require watering every evening, should the weather be hot. This applies chiefly to plants which have been grown in pots.

Standard Plants.—Where these are used extensively for bedding out, it is necessary to train a few fresh plants every year to replace old, worn-out specimens. Heliotropes, Lantanas, Brugmansias, Plumbago capensis, Veronica Andersonii and Pelargoniums may all be grown on now for this purpose.

The Hardy Fruit Garden.

Outdoor Vines.—As soon as it can be seen which are the best bunches, the surplus ones may be removed. This will also be a suitable time to remove the surplus growths. To give the bunches every facility to ripen, the surplus growths must be regularly removed. Mildew usually attacks the berries as soon as they have set. There is nothing more effective in checking this than regularly dusting the Vines with flowers of sulphur.

Thinning Fruits.—If extra fine fruits are required, this work must be constantly attended

to. Where Plums have set thickly, no time should be lost in thinning them. Apples ought to be attended to in rotation, thinning the early varieties first. The final thinning of Pears must not be hastened, as it is possible that many of the fruits will drop. Apricots may now be given their final thinning.

The Kitchen Garden.

Short Horn Carrots.—The demand for young Carrots necessitates the sowing of small quantities of the Stump-rooted kinds all through the summer. Choose a clean piece of ground for their culture, and if the young plants are dusted with soot occasionally, the Carrot fly will give little trouble.

Tomatoes.—Those which have been planted out must be watered regularly till they have become established in the new ground. Attend to the tying of the main growths and remove all side shoots.

Runner Beans.—This crop requires abundance of water at the roots, or the flowers will fail to set. When the plants are staked, a mulch of short manure will be of great value. Another sowing may be made for late use.

Vegetable Marrows.—The plants which were put out in cold frames early in May are now making rapid progress. To obtain early Marrows, it is sometimes necessary to fertilise the flowers by artificial means. An occasional dose of liquid manure, as well as plenty of clear water, will be necessary to keep the plants growing freely.

Coleworts.—A sowing of this useful vegetable may be made now. If the ground is dry at the time, the drills should be watered before sowing the seed. A somewhat shady situation must be selected. When ready for planting, put them out about a foot apart each way.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Parsley.—A large sowing should now be made for use during the winter and spring. On light and sandy soils, where growth is uncertain, a partially shaded position must be selected, and if the weather is very dry, both soot and water ought to be given after growth has fairly started. The early raised plants which were put out last month should have either soot or fertiliser given them, and be kept well hoed and free from weeds.

Peas.—For most districts sowing of early varieties for autumn use will have to be completed within the next ten days. Even then their success very much depends upon the season. Late-sown Peas should never be sown in lines closely together. The best system is to sow, say, at 15 feet to 20 feet apart, and crop the intervening space with dwarf-growing vegetables, such as Brassicas.

Savoy and Cabbages.—The earliest of those sown outdoors are now ready for planting in their growing quarters. The varieties grown will determine the distance they are to be planted apart. A watering should be given to each plant in the evening, unless the weather is moist and showery.

Turnips.—The two early sown crops will be certain to bolt owing to the frost during May, so that any which are worth using should be taken up and the ground filled with other crops. Larger breadths may now be sown for autumn use. If the ground is very dry, the drills are best watered before sowing the seed.

Asparagus.—Now that Peas are coming into bearing, cutting of Asparagus should cease. The beds will require keeping free from weeds, and a dressing of some Asparagus manure should be washed well in to the roots.

The Hardy Fruit Garden.

Gooseberries.—Caterpillars usually get very troublesome at this season, and a sharp look-out should be kept on the bushes so as to destroy the pests before they do much damage. A few days'

delay in this matter sometimes means an entire bush stripped of its foliage. Even if it does not kill the bush, it prevents the fruits developing any flavour, and so spoils them. Hellebore powder is one of the best known substances to apply; but owing to it being poisonous, great care should be taken to see that it is properly washed off the fruits after it has killed the caterpillars.

Plants Under Glass.

Primulas and Cinerarias.—For very late flowering during the spring, a sowing may still be made of either of these flowering plants.

Thalictrum dipterocarpum.—This herbaceous plant is worthy of extended culture in pots. If given cool treatment, its culture is simple. Plants which were potted in the spring are now throwing up strong flowering spikes, which will open in August. The present is a good time to sow seed.

Cyclamen.—The earliest and most forward batch of young plants will be ready for potting into their flowering pots. After a time, when they become established, the frame-lights can be removed during the night-time to allow them to get the full benefit of dews, replacing the lights each morning to protect the plants from the sun.

The Flower Garden.

Hollyhocks.—In favoured localities where the dreaded Hollyhock disease is not in existence, a sowing outdoors might profitably be made to produce strong plants for flowering next season. If the seed is sown thinly in drills, transplanting will be more simple when the time arrives.

Humea elegans must be sown now in seed-pans in a shaded greenhouse or pit. The seed usually germinates irregularly, so that patience is sometimes required until a sufficiently large batch has been raised. Cool treatment should be given.

Aquilegias.—Either for cutting purposes or general garden display, these plants are very fine. Seed, if sown thinly outdoors now, germinates readily and makes good flowering plants by the following season. The seed can either be sown in lines or very thinly where the plants are to remain; then the seedlings can be thinned out as soon as they are large enough.

Bedding Plants are now establishing themselves, and require frequent attention in the matter of pinching to induce in some plants a dwarf and bushy habit. In others, such as Verbenas, pegging down is necessary. Watering should not be resorted to unless one is certain it is really necessary. If sufficient moisture can be retained in the soil by a frequent use of the hoe, this is much better. On light and porous soils, of course, water will be essential, even after a limited spell of drought.

Fruit Under Glass.

Strawberries.—Layering should commence outdoors as soon as the runners are sufficiently advanced, so as to get well-rooted plants ready for potting into 5½-inch and 6-inch pots in a few weeks' time. Plants secured early invariably produce well-ripened crowns by the autumn, which not only winter better in pots, but give larger and finer crops when forced early in the season.

Orchard-House.—Pot trees of Apples and Pears which have nearly finished swelling their fruits should now be removed outdoors to some sheltered border, where they are best plunged up to their rims to prevent too rapid drying up at the roots and to better withstand wind. It should be seen that all the fruits are resting secure on their supports before removing the trees. The opportunity ought to be taken at this time for going over the trees with methylated spirit if blight is present. The trees should be syringed during fine weather, and also have a portable tiffany blind drawn over them when there is bright sunshine.

Late Grapes may require an extra look over to see that each berry has sufficient room to swell without in any way pressing against others. This final thinning of late Grapes is very important, especially if the fruit is required to be kept until the following spring.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

THE DESIRABILITY OF LATE VEGETABLE CROPS.

EARLIER in the year the desirability of growing as many vegetables as possible was emphasised in these pages, and the continued increase in the price of practically all kinds of food calls for extended action in this sphere of gardening. Owing to the scarcity of labour, a good deal of work in the sowing and planting of vegetables during March and April had to be left in abeyance, with the result that in many places ground is lying idle that ought to be producing its quota of useful and wholesome food. The drought that was experienced towards the end of April and the early part of May, together with the severe night frosts that visited many districts during the closing days of the latter month, have also tended to lessen supplies; hence no apology is needed for offering suggestions on the cultivation of vegetables that may successfully be sown or planted during the next few weeks. In most gardens there will be some seed that was not required for sowing earlier in the year, so that there need be very little outlay in that respect. One result of the present war will be to bring before us vividly the cropping possibilities of the soil, and many lessons will be learned that will be of considerable benefit to the community in future years. In the notes that follow I do not propose to deal with extraordinary vegetables that need elaborate preparation or apparatus to bring to perfection, nor those kinds which yield comparatively little actual food.

Beans.—Any of the Dwarf French Beans sown now in rows 1 foot apart will yield some useful pods for gathering after those sown earlier are finished. The soil ought to be well dug and manured, and if rubbish such as lawn mowings, leaves and annual weeds that have not yet reached the seeding stage can be worked deeply into the soil, they will tend to keep it cool and moist during the hot days of August. It should be remembered that the seeds of all French Beans are perfectly wholesome and palatable, as witness the Haricot Bean; hence any pods on the earlier-sown plants that cannot be profitably gathered green should be allowed to mature.

Beetroot.—Seed of any of the round or Turnip-rooted varieties may be sown during the next three weeks with good prospect of success. Rows 1 foot apart, is the distance, and, before sowing, well water the drills. This should be done for all small seeds that are put in at this time.

Borecole or Kale.—Any of the varieties sown during June will be in ample time for good late winter and early spring crops. Sown in rows 1 foot apart the plants will be ready to go where the early Potatoes or Shallots have been lifted or where old Strawberry plants have been uprooted after the fruit is gathered. The same remarks apply to such Broccoli as Snowdrift, May Queen and Purple and White Sprouting.

Cabbages.—The date for sowing spring Cabbage is the last week in July or the first week in August. Sow as advised for Borecole. Savoy Cabbage, sown at once and planted out when ready where early Potatoes or other crops have been cleared, will give some useful, if small, heads for cutting

early in the New Year. Christmas Drumhead Cabbage and Hardy Green Colewort are other types that may with advantage be sown during the next week or two.

Carrots.—The early Stump-rooted or Horn Carrots may be sown thinly in rows 1 foot apart from now until the end of July. The young roots thus obtained will be available for use from the end of September onwards, and will prove a welcome change to the large maincrop varieties.

Kohl Rabi.—The small garden forms of this must not be confused with the coarse roots grown in the fields for cattle. Seed sown in drills 1 foot apart in well-enriched soil and treated as advised for Beans will give excellent Turnip-like roots for winter use. The seedlings must be thinned early, so that they stand from 6 inches to 9 inches asunder.

Leeks.—Although too late to sow seeds, this is just the season for planting, and doubtless in some districts plants could be obtained from the local nurseryman. They ought to go 9 inches apart in trenches 6 inches deep, these having previously been well manured, much in the same way that Celery trenches are prepared.

Peas.—It is not generally known that Peas may be sown with every prospect of success during June and the early days of July. Late Peas suffer most from attacks of mildew, brought about by the drought of August and early September; hence rather more than ordinary precautions must be taken with these late sowings. A cool, moist root-run is essential, and to secure this it is advisable to dig out a trench 18 inches wide and as much deep; then in the bottom place at least 6 inches of well-decayed manure mixed with lawn clippings, annual weeds, or any other garden refuse that is capable of retaining moisture. Some short, well-rotted manure may also, with advantage, be mixed with the upper soil that is filled into the trench. For sowing in June, one of the recognised late Peas, such as Gladstone, should be selected; but for July use an early one, such as Little Marvel, The Pilot, or Eight Weeks. These are hardier and come into bearing more quickly than the maincrop sorts. When a few inches high, soil should be drawn up to each side of the plants so as to form a small ridge, each side of which should then be mulched with short manure and lawn clippings.

Potatoes.—To many it will no doubt appear ridiculous to advocate the planting of Potatoes in June, but the thrifty cottager discovered years ago that it was better to plant old Potatoes at this time than to throw them away. Where such are available, they should be planted without delay, and with anything like a favourable autumn they will yield good crops of tubers for eating as "new" Potatoes during the late autumn.

Turnips.—It is a well-recognised rule of gardening that the best Turnips are obtained from sowings made during the latter part of July and the first week in August. Drought is their greatest enemy, and to prevent it as much as possible some precautions are necessary. In addition to working plenty of manure, grass or other garden refuse into the soil, the seed-bed should be covered, after the seed is sown, with clippings from the lawn. These prevent moisture escaping from the soil, and have been found to act as a preventive against the ravages of the Turnip fly. This crop must be grown quickly, otherwise the roots are hard and useless.

F. W. H. in *Country Life*.

PRIMROSE AND POLY-ANTHUS.

SOME PRACTICAL HINTS ON CULTIVATION.

A CORRESPONDENT, referring to the utility of these plants in the spring flower garden and in other ways is of opinion that an article dealing with their cultivation and increase would be helpful to many of our readers besides himself. Realising that the object of THE GARDEN is to be helpful to its readers, we gladly accede to the request at a singularly opportune moment, in the hope that the practical hints which are appended may assist in the direction indicated and bring into greater prominence plants which merit universal popularity. The request referred to is for an article on "Primroses (single and double) and Polyanthus, with information as to culture and other things." Single Primroses and Polyanthus raised from seeds fall naturally into one and the same category; hence the same treatment will do for each. The double Primroses are distinct, and have, for garden purposes, to be increased by division; hence they merit consideration apart.

Raising the Polyanthus from Seeds.—It is a curious fact, seeing the perfect hardiness, together with the simple cultural needs of the race, that the Polyanthus is so rarely seen in perfection, and in all probability the last named is to some extent responsible for not a little of the indifference displayed by many in growing it. The exhibitor—no matter of what class—knows well the value of systematic work.

Seed-Sowing.—Here, broadly speaking, the gardener has choice of two seasons, viz., that of sowing in the open ground soon after the crop of seeds has been harvested in early summer; and, secondly, of sowing under glass in slight heat during January or February. In each case the resulting seedlings, given proper care meanwhile, produce fine plants for bedding out at the same time, the late summer-sown plants being somewhat larger if freely grown on. If sown in the open, August is sufficiently early, the seeds to be sown thinly in very shallow drills in rich, well-prepared, somewhat shady ground. Primula seed at all times is impatient of being buried, and only the thinnest soil covering should be given. A variant of the above, excellent in every way, is that of sowing in boxes or pans at much the same season. In favourable localities the seedlings may be large enough for transplanting the same autumn, and where this is possible, examples of huge size result. Generally, however, they are permitted to remain till the following March, when they may be transplanted in rows a foot apart and about eight inches asunder. Those sown in heat under glass in January require to be transplanted when large enough to handle and grown on steadily till the end of March, when, after hardening off in frames, they will be ready for planting out. These glass-house or frame-grown plants require frequent attention to watering, dryness at the roots or otherwise being fatal to progress.

Planting Out the Seedlings.—A border having a north or north-west aspect is best for the plants, or in any case a position affording slight shade. Compared to its stature, it is insufficiently recognised that the Polyanthus is a gross-feeding subject; hence the ground should be deeply

cultivated and well enriched. In Nature the Primrose attains its highest excellence in deep loams that are uniformly cool. In such the leaf tufts may be a foot or more high, though we see caricatures of the plant less than 2 inches high on the driest banks. Such lessons the gardener cannot ignore with impunity; hence the aim should be deep and good soil, with partial shade wherever possible.

Dividing the Plants.—The Polyanthus is so eminently satisfactory when raised from seeds, yielding plants of such unmistakably superior vigour when compared to other methods, that increase by division is only rarely resorted to. In a word, the divided plant, no matter how cultivated, is inferior in vigour, stature and flowering to that raised from seed, and the specialist realises this to the full. The amateur, however, often lays store by his old plants and prefers to increase them by division, as do also many gardeners. Where seed is required, the operation must be deferred, otherwise it is best done soon after flowering. When dividing, it is best to reduce the plants to single crowns.

Double-Flowered Primroses.—These are rarely seen in perfection in the South of England, the plants succeeding much better in the North, also in Scotland and Ireland. Lovers of cool, loamy soils, like many of their tribe, experience has proved that the cooling effect of cow-manure is very helpful to them, and with this and partial shade a certain measure of success may be secured. For general garden purposes division of the clumps every second year after flowering is found suitable, though in other instances it is indulged in annually. Retentive clay soils and such as contract during heat and drought are not suitable, the plants preferring a medium where more uniform conditions are assured. In not a few instances a liberal addition of leaf-soil is an aid to success, while neglect of the essentials in the case may result in considerable loss. It is surprising to what an extent these double sorts are benefited by overhead watering during the summer, and growers who so indulge their plants are invariably well repaid. Evening is the best time for this operation. The foregoing remarks are applicable to all the double varieties save one, the exception being the old Crimson Pompadour kind (*Primula acaulis rubra flore pleno*), at once the most beautiful and rare. This I cannot claim ever to have cultivated with success in the open with the rest, though I have never seen it approach the vigour I have more than once obtained by specialising with it in a low-lying frame. Here, where no ray of sunlight ever reached the plants, in a soil well enriched with old cow-manure, daily watered for months overhead, and frequently overhead, too, with weak liquid manure and soot-water combined, the plants grew with the greatest luxuriance. By no other method have I seen such vigour or such splendid flowers. So good a subject merits any treatment to make it a success.

Pot Culture and Bedding Out.—Grown as recommended, the plants may be bedded out for spring display in October, when the beds are freed of their summer occupants, lifting them with a good ball of earth. If desired to be grown in pots for exhibition work—they are more frequently shown as lifted specimens in baskets—there is no better time than a few weeks before being required. In this way the plants regulate themselves, and more perfect leafage and clean flowers may with slight protection be assured.

E. H. JENKINS.

HORTICULTURE IN THE GOOD OLD DAYS.

AMONG the more ancient members of the community, reference is often made to the "good old days." It is, however, questionable whether the conditions of life and hours of labour which prevailed, say, half a century ago would find favour at the present time. I think not. In one respect, however, those who depend upon the commercial side of horticulture may well look with longing upon the prices which used to be charged for indoor plants.

The difference between the sums asked now and those which prevailed from thirty-five to fifty-five years ago was brought markedly home to me when looking over a series of catalogues covering these two dates. Many of the prices were such as would make the average nurseryman's mouth water. For instance, new Pelargoniums as a rule varied from one to one and a half guineas, while for new Fuchsias half a guinea or sometimes more was asked. In the catalogue of new plants issued by Messrs. Rollisson of Tooting for the year 1858 the above prices were plentiful, while such readily propagated subjects as Gloxinias, Petunias, &c., were priced at five shillings each. Of new stove and greenhouse plants, Rhododendron Princess Royal was quoted at two guineas each, the same price being asked for Begonia Rex and Gardenia citriodora, while the Golden Chestnut of California (*Castanea chrysophylla*) and Ouvirandra fenestralis were both a guinea more. In a catalogue of the same firm nineteen years later, namely, in 1877, which brings us much nearer to our own time, high prices continued to prevail. New Crotons were quoted at one to five guineas each, and from my own experience I know that these prices were not prohibitive even at a later date than that just mentioned. Five guineas, too, for *Æchmea Mariæ-Reginæ*, *Hippeastrum Leopoldii*, *Aralia elegantissima*, *Anthurium scherzerianum album*, *Dracæna (Cordylina) lentiginosa*, and some of the *Nepenthes* are very different to what any stove and greenhouse plant, however new it might be, would realise to-day. A guinea each for *Kentia belmoreana* and *K. forsteriana* is very different from to-day's prices, while the list of Palms for which one to five guineas were charged was quite a long one. It must be remembered that these prices were asked for ordinary-sized plants, not specimens.

A notable feature at that date of the Orchids is that they are practically all either species or native varieties. For many of the distichous-leaved Orchids, such as *Aerides*, *Saccolabium* and *Vandas*, particularly high prices were charged; while for the autumn-flowered *Cattleya labiata* no less than five to seven guineas were asked. That hybrid Orchids would in the future occupy the position they do now was at that time probably undreamt of.

One more notable feature stands out in Messrs. Rollisson's catalogue for 1877. It is the fact that no fewer than 225 greenhouse Heaths are enumerated. This serves to show the extent to which hard-wooded plants were at one time grown, compared with the case at the present day. One is inclined to ask how many of these are now obtainable from the ordinary trade sources.

H. P.

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

Offices: 20, Tavistock Street, Covent Garden, W.C.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

MAY-FLOWERING TULIPS NOT DOING WELL (*Carisle*).—We feel sure that, owing to the Nasturtiums, your Tulips did not get properly ripened off last summer, and very likely were a good deal worried by slugs, as the dense foliage of the annual makes a fine harbour for them, when the stems decay there is a ready-made passage through which they can get at the tempting food below. The bulbs should have been lifted towards the end of June or early in July, when the foliage had died off, and then dried, graded into sizes and stored. The smaller ones only produce second-sized blooms and the very little ones none at all. The drying process must take place in an airy room or shed out of the reach of the sun.

HOUSELEEK FOR INSPECTION (*W. F. M. C.*).—The Houseleek is attacked by rust caused by the fungus *Eudophyllum Sempervivi*. Once attacked, the plant is likely to be attacked again, and it would be best to take out the diseased plants and replace them with fresh ones. The "dust" you speak of is composed of the spores of the fungus, by which it spreads, and the sooner the diseased plants are removed the better. Probably a rose red solution of potassium permanganate would be the best thing to spray the healthy ones with to protect them against the infection. We regret to learn you were so cavalierly treated by the exhibitor. It is quite true that many Cacti were grown on the Continent, some in Holland, some in Belgium—alas! now so much overrun by the enemy—and some in Germany, but some in this country too. There were three exhibitors of Cacti at the show you mention. Probably some of our advertisers would be able to supply your wants.

TREES AND SHRUBS.

HEDGE OF LUPINUS ARBOREUS (*J. T. Studley*). The plants of *Lupinus arboreus* will be improved by being cut back after flowering. At the same time it is advisable to remove a little of the older wood, in order that the new shoots may have as much light and air as possible. As a rule, it is not a very long-lived plant, therefore you must be prepared for plants or portions of plants dying now and then. The best results are usually secured by destroying old plants and commencing again with young ones when signs of serious deterioration are evident.

ROSE GARDEN.

ROSE MME. LAMBARD SPORTING (*Mrs. J., New Zealand*).—We are not surprised to hear you have a sport of this fine old Rose. The difficulty will be to fix it. We have seen almost similar sports, but the second flowers from the same shoot have come the normal colour. We advise you to take a cutting or a bud from the

shoot that has sported. We are glad to hear of your success, and would welcome an article from your pen dealing with your experiences in Rose-growing, and also as to the behaviour of some of our recent new Roses in your climate.

EVERGREEN RAMBLER ROSES (*Sir L. M.*).—One of the most evergreen of our ramblers is American Pillar. It carries its foliage well through the late autumn, and is indeed a grand Rose. Gerbe Rose and Jessica are two other splendid varieties, both in persistent foliage and beauty of bloom. Aimée Vibert and its yellowish sport are very evergreen and free-flowering, but they are not very fast-growing, although they make beautiful pillars. Alberic Barbier is excellent, both for holding its foliage and in giving a grand display of flowers in June, with few or many throughout the season. Silver Moon and Jersey Beauty hold their foliage well. Sylvia is a very perpetual bloomer, but not a very rampant kind. Jean Girin we have found to be perpetual, although it does not yield a profusion of bloom, yet its clusters are very pretty in the autumn. We hope to obtain perpetual-flowering ramblers through the Hybrid Musk. Such as Trier, Danæ and Moonlight are perpetual, but not very vigorous. This latter fault will probably soon be overcome. We hope to watch some of the newer ramblers this season regarding the points you write about, and shall have pleasure in giving our experiences later on.

THE GREENHOUSE.

CANKER ON MARECHAL NIEL ROSE (*Heath*).—Cut out the cankered spots and paint the cut surface with white paint, tar, or styptic. Similarly deal with all wounds.

RUST IN GLOXINIAS (*Heath*).—Rust in Gloxinias is due to the attack of a minute mite almost invisible to the naked eye, a pest which also attacks Begonias, Cyclamens and other greenhouse plants. The best remedy is to dip the plants into a wash made by kneading flowers of sulphur into a handful of soft soap and dissolving it in 1½ gallons of soft water. Repeat the operation until all the mites are killed.

CARNATIONS ABNORMAL (*Mrs. C.*).—Malmaison Carnations are sometimes liable to behave as yours have done. This may be owing to various causes, by means of which the plants have sustained a check. They may have been kept too wet or too dry, while an excess of stimulants or the absence thereof might have the same effect. A light, buoyant atmosphere is very necessary to the development of the flowers of Malmaison Carnations, as they are more affected by atmospheric moisture than the Perpetual-flowering kinds. If the hard green portion is carefully removed, the flower will sometimes develop and hide the defect. The name of the Lilac is Souvenir de Louis Späth.

ADVICE ON CYCLAMENS (*T. C.*).—If you follow the advice given you with regard to your young plants of Cyclamens, you will assuredly kill them. Young plants such as yours require very careful treatment under glass at this season. We presume your plants are still in the seed pots or pans, in which case they should, when two leaves are developed on each, be potted singly into small pots. A very suitable compost for them is made up of equal parts of loam and good leaf-mould, with a liberal sprinkling of silver sand. These should be well mixed together, and if passed through a sieve with one-third of an inch mesh, the operation of potting will be facilitated. A few broken crocks must be put in the bottom of each pot for drainage, and immediately over them a little of the rougher soil that has not passed through the sieve. In potting, the corm should be buried half its depth in the soil. You do not say what accommodation you have for growing the young plants, but they require a snug little structure where they can be kept near the glass. A liberal amount of atmospheric moisture is very necessary to their well-doing; hence they should be stood on a bed of ashes or Cocoanut refuse kept moist. If no other space is available, they may be stood in a frame shaded from the sun. Of course, the plants must be watered when required.

FRUIT GARDEN.

CARDINAL NECTARINE FRUIT CRACKING (*Herbert Jones*).—The variety is subject to this fault. The best precaution to take against this we have found is to crop rather heavier, to give abundance of air during the time the fruit is taking on its second and final swelling, mulch over the roots with well-decayed manure, and avoid very heavy waterings with liquid manure. Rather give moderate waterings and oftener.

PEAR LEAVES FOR INSPECTION (*C. J. L.*).—The spots on the Pear leaves are due to the attack of the Pear leaf-blighter mite (*Eriophyes pyri*). Each spot is inhabited by a few mites, which have hibernated beneath the bud scales and which enter the leaf just as the buds are expanding. The best remedy for this, when only a few leaves are affected, is to remove the diseased leaves and to burn them; but if many show the trouble, spray during the winter with a winter wash made by dissolving 2lb. of caustic soda in 10 gallons of water, or, better still, with the Oregon winter wash, made by mixing 3lb. of quicklime and 1lb. of caustic soda together and slaking with hot water in which 3lb. of flowers of sulphur have been well stirred. Stir the mixture, which will boil of itself, for some time, and gradually add 3lb. of common salt. Allow it to boil and then make up to 10 gallons with water. Spraying now with a nicotine wash should do

some good, though it is unlikely to rid the trees entirely of the pest. The curling of the Pear leaves is due to the presence of numerous small grubs of the leaf-curling midge of the Pear, which you may see if you unroll the curled foliage. This pest seems to be spreading in parts of the country. Probably a very fine spray of nicotine wash would kill a good many, or spreading kaint (if it can be obtained) under the trees would kill a good number of the larvae as they fall to the ground, where they hibernate about three inches or four inches down. The curling of the Rose leaves is due to a different insect entirely—the leaf-curling sawfly, which has a tiny, almost transparent, green caterpillar feeding inside the rolled-up part of the leaf. The caterpillar is difficult to see, but does a good deal of damage in the course of its life. A tree once attacked is often attacked year after year, as the flies do not travel far. The grubs drop to the ground when fully fed and pupate there 1 inch or 2 inches below the surface, and it would be well to remove the top 3 inches of soil during the winter in order to get at and destroy the pests hibernating there.

KITCHEN GARDEN.

SEAKALE: TREATMENT FIRST YEAR AFTER PLANTING (*E. M. Wild*).—Cut off the flower-stalks; allowing them to flower weakens the roots. Keep the ground clean by hoeing. The tops will die down in the winter, and should be cleared away. At the end of March cover the roots with Seakale pots which have lids to them, and the pots with littery strawy manure. In about a month's time the Seakale should be large enough to cut. During this operation cut off a small portion of the top (or crown) of the root with the Seakale. You will then secure all the leaves at one cutting. The old crowns so cut will form new ones in due time. A simpler way is to cover the roots to the depth of 15 inches with the ordinary soil of the garden. When growth starts, the Seakale tops will rise through the soil and be beautifully blanched in the process. Cut in the same way as directed above as soon as the growth of the Seakale is perceived to crack the surface of the soil.

MISCELLANEOUS.

NAMES OF PLANTS.—*Mac. Deal.*—The Rose is *Aglala*.—*G. M. Jones*.—*Gazania splendens*.—*W. P. Lees*.—*Dendrobium nobile*.—*C. C. F.*—1 and 2, Forms of *Sisyrinchium angustifolium*; 3, *Libertia formosa*.—*G. T.*—*Brunfelsia eximia*.—*Cornish Gardener*.—*Aristotelia Macqui*.—*W. Tillett*.—Feathered Elm (*Ulmus glabra* variety).—*Rev. Dr. B.*—*Mimulus glutinosus*, syn., *Diplacus glutinosus*.

PARCEL NOT DELIVERED.—A label, correctly addressed, stamped with three halfpenny stamps, and bearing the postmark "Dulce," has been sent us by the postal authorities, with the intimation that it was found unattached in the post. Will the sender please write to us?

THE EDITOR'S TABLE.

A Beautiful Laburnum from Maidstone.—Messrs. George Bunyard and Co. send us from their Maidstone nurseries a raceme of a very beautiful Laburnum that is known as Latest and Longest. This raceme was nearly two feet long, the flowers being of a particularly rich yellow colour. As its name implies, this Laburnum is among the latest to flower, and certainly has longer racemes than any other known to us. The foliage closely resembles that of *L. alpinum*.

Habranthus pratensis from Norwich.—Mr. E. G. Davison, Westwick Gardens, Norwich, sends a beautiful contribution of these glorious scarlet flowers. As stated on page 277 of our issue for June 5, Mr. Davison is more successful with these plants than anyone else we know, and the flowers now under notice are exceptionally good. The stem of each is about eighteen inches long, and it is not uncommon to find six blooms on a stem. Mr. Davison writes: "I am sending you a few spikes of *Habranthus pratensis* for your table. We have a lot of flowers at present, and could cut over four thousand spikes. One bed alone has over two thousand flowering spikes. All are growing in the open garden, and have had no protection whatever. In common with most other things, they were later coming into bloom this season."

OBITUARY.

JAMES FORDER.

THERE were not many gardeners or horticulturists in East Anglia who did not know Mr. James Forder, and they will be grieved to hear of his passing to the great majority on June 3 in his fifty-ninth year. For over a quarter of a century he represented the well-known firm of Messrs. Daniels Brothers, Limited, Norwich, "upon the road." He possessed a cheery disposition, which endeared him to all with whom he came in contact. As a mark of esteem a large number of members of the East Anglian Horticultural Club attended his funeral at Norwich. Many splendid wreaths were sent, including several of red Carnations, the favourite flowers of the deceased.

East Anglian Horticultural Club.—This club carries its meetings on each month throughout the year, and by this means keeps up a bond of fellowship with the horticulturists of the district. The June meeting was held at the Boar's Head Hotel, Norwich, under the chairmanship of Mr. John Clayton, when a very good muster was present. Mr. G. Todd read a very interesting paper upon "Summer Bedding," the main theme of it being centred upon harmony of colour rather than the crude contrasts one so often meets. This was responsible for a good discussion. Mr. H. Goude, Lecturer to the Norfolk County Council, followed this with an impromptu discourse upon "Bees and Their Relationship to the Gardener." In the course of his remarks, Mr. Goude told of the many ways he had observed, while going about the county, that hives of bees had been placed in positions to facilitate the fertilising of fruit blossoms. Several questions were put, to which the lecturer suitably replied.

Summerdown Military Convalescent Hospital, Eastbourne.—Will garden-lovers help convalescent soldiers? There are nearly three thousand wounded "Tommies" in this newly opened camp. They are digging the ground round the huts, and gardens are developing in every corner. Many plants have already been given, but the place is so large that literally thousands more would be very thankfully welcomed. Gifts should be addressed to the Officer Commanding, and other communications to the Garden Secretary.

TRADE NOTES.

"BULBS FOR EARLY DELIVERY."—This is the title of an interesting little catalogue that has been sent us by Messrs. J. R. Pearson and Sons of Lowdham, Notts. As every good gardener knows, it is highly desirable to pot such bulbs as Roman Hyacinths, Narcissi, Snowdrops and Tulips early if they are to be forced hard; while Freesias, grown under normal conditions, should go into their pots as soon as the bulbs are procurable. Messrs. Pearson make a feature of the early delivery of the kinds mentioned above, particulars of which are set out in the catalogue referred to. Copies can be obtained post free by writing to the firm.

THE "ACME" PEST ERADICATORS.—PESTS, and especially those of the insect tribe, are more prevalent than ever this year, and we have seen Rose bushes and fruit trees with distorted foliage and shoots that are far from being a credit either to their owner or the gardener. Remedies are now so plentiful and reasonable in price that pests in such degree ought not to be tolerated. The catalogue of insecticides, fungicides and weed-killers, with apparatus for their application, which we have just received from The Acme Chemical Company, Limited, Tonbridge, Kent, sets out the various uses to which these substances may be successfully and economically put, and we think everyone who is troubled with pests should have a copy by them. The firm will be pleased to post it free of charge to any reader who applies direct to them for it.

* * * The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

THE GARDEN.

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JUNE 26, 1915

NOTES OF THE WEEK.

The Horticultural Club.—The committee of management of the Horticultural Club has decided to abandon the annual outing, which usually takes place in July.

June Frost in Hertfordshire.—Mr. E. Beckett, V.M.H., writing to us from the gardens, Aldenham House, Elstree, Herts, states that a severe frost was experienced there on the morning of Saturday, the 19th inst. Vegetable Marrows, Potatoes and other crops were badly damaged.

The Home Production of Food.—Among the committee appointed last week by the Board of Agriculture to consider and report what steps should be taken by legislation or otherwise for the sole purpose of maintaining and, if possible, increasing the present production of food in England and Wales, on the assumption that the war may be prolonged beyond the harvest of 1916, we are pleased to see the name of Mr. A. D. Hall, M.A., F.R.S. His interest in horticulture will, we feel sure, be a guarantee that this section of the food-producing community will not be overlooked.

A Late-Flowering Italian Apple.—*Pyrus crataegifolia* is very distinct and pleasing, flowering during the first half of June. It forms a bush or small tree and is a native of Northern Italy. The pure white flowers, which are three-quarters of an inch in diameter, are freely borne in corymbs on long, slender shoots. Trees at Kew are some 9 feet in height, and as these mature fruits, the raising of young trees from seeds is the most satisfactory method of propagation.

The Best Roses in Australia.—Recently the *Argus* asked its readers to name the twelve Roses they considered the best in Australia. The result, which will, we think, be of interest to rosarians in this country, is given below. Evidently, by Frau Karl Druschki heading the list, fragrance is not a strong point with the Australian enthusiasts: Frau Karl Druschki, 390 votes; Mme. Abel Chatenay, 382; White Maman Cochet, 319; Lyons Rose, 302; K. A. Victoria, 300; General Macarthur, 269; Belle Siebrecht, 245; La France, 219; Joseph Hill, 156; Prince Camille de Rohan, 144; Rhea Read, 139; and Pink Maman Cochet, 124.

A Hardy Yellow-Flowered Grevillea.—Though a fairly large genus, the Grevilleas are only found wild in Australia. They are thus better suited for cultivation under glass in this country, though in sheltered positions in the London district, but more particularly in the mild climate of the South and West, several species are very pleasing flowering shrubs. The hardiest is *G. juniperina sulphurea*, a native of New South Wales. Until recently, notable success attended its cultivation

in the Coombe Wood nursery of Messrs. J. Veitch, while, during May and June of this year, plants have flowered freely in a sheltered position at Kew. *G. sulphurea*, as it is grown in nurseries, is an evergreen bush reaching some 4 feet to 6 feet in height and as much in circumference. The needle-like leaves suggest a conifer. The light yellow flowers are freely borne in clusters along the branches. To the ordinary soil of the garden,



GREVILLEA JUNIPERINA SULPHUREA, A SHRUB WITH CURIOUS YELLOW FLOWERS.

peat and leaf-mould should be added for this and other species of Grevillea. Cuttings form a ready means of propagation, inserting half-ripened growths under a bell-glass in a slightly heated frame during July and August. A companion plant for sheltered positions is *G. rosmarinifolia*.

Trial of Bearded Irises at Wisley.—The trial of Bearded Irises will be continued in 1916. Of the varieties now on trial in the gardens, those

adjudged by the committee to be of sufficient merit will be grown and judged during the coming year. New varieties sent in before July 1 will be included in the trial.

A Good Rose Combination.—A few days ago we were admiring the Roses Longworth Rambler and Mme. Alfred Carrière, the one with its bright rosy crimson blooms and the other with its almost pure white fragrant flowers. These suggested a good combination for those who appreciate contrasts, and a note was made of them for planting together on an archway. On Saturday last, when visiting some of the gardens at Gidea Park, Essex, we found that the idea was already in being in one garden, and although the plants were young, they were sufficiently advanced to indicate the effect they would produce. Both have large blooms, both flower early, and both continue their display well into the autumn. It would be difficult to find two more charming and useful ramblers than these, and we hope their merits will be more highly appreciated.

A Pink-Flowered Horse Chestnut.—*Æsculus plantiënsis* is a Horse Chestnut of hybrid origin raised in the nursery of M. Simon Louis at Plantières, near Metz. The parents are given as *Æ. Hippocastanum* and *Æ. carnea*. The tree grows freely, and in this respect resembles the common Horse Chestnut; but the colour of the flowers is a pleasing delicate pink. In addition to *Æ. plantiënsis* being a beautiful tree, the fact that it does not produce fruits is an advantage in public parks, where the common Horse Chestnut often causes trouble through boys knocking down the fruits with sticks and stones. Grafting and budding are the methods of propagation, using *Æ. Hippocastanum* as a stock.

Flower Shows in London.—During the next few weeks no fewer than three large horticultural shows will be held in London. On Tuesday, June 29, the National Rose Society's exhibition will be held at the Botanic Gardens, Regent's Park. This promises to be exceptionally good, and the arrangements already made for the convenience of visitors excellent. Schedules can be obtained from the secretary, 25, Victoria Street, Westminster. On July 6 the Royal Horticultural Society's summer show will open at Holland House, Kensington High Street, and, as usual, will be maintained for three days. Then on the following Tuesday, i.e., July 13, the National Sweet Pea Society will hold their annual exhibition at the Royal Horticultural Hall, Vincent Square, Westminster. This is always a very artistic display and well worth visiting. Schedules are obtainable from Mr. H. D. Tigwell, Greenford, Middlesex.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

The Bird Cherry.—I was pleased to see a note on this neglected tree in *THE GARDEN* for May 22, page 241. Another point in its favour is that, unlike those of so many hard-wooded trees and shrubs, the flowers last well in water for ten days, where the white racemes are contrasted with the pale green foliage to advantage. A fine lasting white flower is *Achillea mongolica*, which keeps its beauty for ten days.—GEORGE BUNYARD.

Tulip Bouton d'Or.—I was very pleased to read the appreciative note in *THE GARDEN*, page 277, concerning this most useful Cottage Tulip. It is one of the good old sorts that will be a long time, I fancy, before it is superseded, even if it ever is. It is a splendid deep yellow, its blooms are shapely, and, what is of equal importance in these times, the bulbs are very cheap. I would not like to be without Bouton d'Or, and one can afford to plant the bulbs somewhat liberally. Incidentally, I may mention that, like some of the other May-flowering sorts, it increases fast, so that one can soon work up a stock. Last autumn I tried the experiment of planting Bouton d'Or on a border that only gets the sun for a short time in the afternoon, and despite the fact that the recognised rule seems always for Tulips to be planted in "a sunny place," this old favourite simply revelled in the shady corner assigned it, and it was not until the end of May that I cut the last of the flowers. I have heard of blooms of this variety being cut approaching abnormal size—as was the case at Chelsea Show—but it has not been my fortune to achieve the abnormal. That does not trouble me, however, not being an exhibitor, and I am quite content in being able to have flowers of such an intense yellow and, as I have said, from such moderately priced bulbs.—W. LINDERS LEA.

Lupinus polyphyllus.—"Garden Steward's" letter in the issue of *THE GARDEN* for June 5, page 278, in reply to my criticism on the cultivation of the above, is most interesting, and I am grateful to him for troubling to write again. My contention was the roots "several feet long," and this "Garden Steward" has amended to 18 inches or 2 feet. I quite admit, now that I know his locality and that his soil is very light gravel, that this length is attainable; but, as said previously, it seems unlikely that they would be even that length after four to six months' strong growing. If plants are put in positions such as the boundary of a shrubbery, where they can grow for three or four years undisturbed, a far greater length than 2 feet would be possible in such a soil. However, all that is beside the point. My object in again writing is to make two little corrections. The word "saved," printed in my previous letter, must be a printer's error, because I realised from the first that if "Garden Steward" could not grow Lupines, he could not very well save seed from them! I should also like to correct one of his remarks. "Garden Steward" says: "I can quite believe that *Lupinus* always remains small near Sheffield."

But he is in error. If he grew his Lupines on a hillside bordering our Derbyshire moors, exposed to winds of the greatest coldness and strength, then possibly they would not do. But here in Ecclesall, at an altitude of 650 feet to 700 feet, and exposed, according to some, "to most of the winds that blow," we grow some of the biggest Lupine plants and best spikes of flowers that our visitors say they have ever seen. Ours are no "small" plants when they get established. Our spikes are also large and full. But these plants, though big, do *not* possess roots "several feet long."—E. T. ELLIS, *Weekwood, Ecclesall, Sheffield.*

Stone Edgings to Pathway.—I do not know if you will think the enclosed photograph worth reproducing in *THE GARDEN*. It is the top path



STONE EDGINGS TO A PATHWAY IN A READER'S GARDEN IN SCOTLAND. GENTIANA ACAULIS THRIVES HERE.

in our old manse garden, and was taken about this time last year. We have no rock garden, I am sorry to say, but this is the nearest approach to it we can manage. The path itself is made of old stone slates from the roof of a farmhouse, and was laid about four years ago. We put in some round beach stones at the sides to help the plants to grow, and they certainly have grown. I am always cutting off bits. The flowers in bloom shown in the illustration are just ordinary rock plants. There are about one hundred and eighty different kinds, such as *Aubrietias*, *Saxifrages*, *Phloxes*, *Lithospermums*, *Campanulas* and *Dianthus*, and, best of all, *Gentiana verna* and *G. acaulis*. The latter grows like a weed here. The edging of it is 12 inches wide at least, and a solid mass of blue.—I. BARRON, *Dunnottar Manse, N.B.*

Wanted: A Recipe for Elderflower Wine.

I have just been told, by one who has tasted it, that Elderflower wine is far superior to Elderberry. I shall be very grateful if any of your readers will give a reliable recipe. As the ballad relates how "Mistress Jean she was makking her Elderflower wine" when the Laird of Cockpen paid that untimely call, I suppose the said wine is Scotch, or Scottish, or Scots? How shall a Southern pen essay the egg-and-sword dance amid these words without fear and trembling, any more than a Northern (I will not venture on the other term again) can learn to discriminate the uses of "shall" and "will"?—ANNE AMATEUR.

Large Vegetables.—I am amused at the letters which mine, *re* large vegetables, has called forth.

I am afraid neither the question of growing for market nor waste, as the chief objection, was the cause of my complaint, for something is always done with what is left over; but I was feeling (as usual when ordering the garden seeds) how tiresome it is that when, from motives of economy, one goes in for a "collection" instead of countless shilling packets (half of which never get sown), one is obliged to order in addition some packets of the smaller-sized vegetables, and give away, or waste possibly, those of "Mammoth" breed, because these are forced upon one in each "collection," and one is not allowed to change them. I still think, and "Anne Amateur" agrees with me, that a dish of small vegetables is preferable; and that the sight of a messed-about dish of some of the larger sorts, after even two or three people have helped themselves, is frequently a disgusting sight. It is unavoidable. This being so, it would be a comfort if more small-sized, first-rate vegetables were aimed at by the seedsmen instead of showing us so evidently that they are not, by the titles, illustrations and printing in their catalogues. I have now before me one of these, open at a page on which is a large-sized basket well filled by two Broccoli. What dish would they go into? Another page is entirely taken up by one Onion, "weighing 4lb."; another, by a Broad Bean pod 9 inches long. I shudder to think what size the Beans would be before they came into the house! I shall continue to maintain that for home growing and consumption far too many large varieties are puffed and advertised by the seedsmen, and can only hope that they will in time recognise this, and give us more "Gem" varieties and fewer "Mammoths," in pity, at any rate, for small households and for those who prefer small, sweet-tasting vegetables.—A. LA T.

Apple Cox's Orange Pippin Grafted on Irish Peach.—In your issue of May 22 there is a note on canker, or rather non-cankering of Cox's Orange Pippin when grafted on to trees of Irish Peach. I have been studying and experimenting with this trouble for the past twenty years, and I am convinced that the dying away of the bark and branches is not caused by any external agents alone, though injuries may set it up. The primary cause is much deeper. I have often wondered if canker in the vegetable kingdom and cancer in the animal are not both the same. I should

esteem it a great favour if Mr. Molyneux would answer the following questions at his leisure: (1) Why was it decided to regraft the trees of Irish Peach? (2) How many trees were grafted? (3) How much of the wood of Irish Peach was there left after the scions were put on? (4) What age were the trees when grafted? (5) To what cause or causes does he attribute such beneficial results?—OBSERVER.

About Apple Blossom.—As a reader of Dr. Watts, "Anne Amateur" will probably realise that it is vain to seek perfection upon earth. She will not, therefore, be surprised to hear that the best-flavoured Apples do not possess the most beautiful flowers, and, generally speaking, the redder the fruit the paler the flowers. Those of the Codlins are generally the richest coloured, and there are few sorts to approach Lord Derby in this respect; size and colour are here combined. Nearly equalling this are Sandringham and Nelson Codlin. All these have a rich carmine tint without and a pure white within. Of the suffused types, Golden Spire is representative. Here the colour is the same on both sides of the petal, a rosy lilac. King's Acre Pippin has a similar flower, also Venus Pippin. This type of flower is, however, not so effective, in my opinion, as the Lord Derby type. For lateness of flower Royal Jubilee, Bess Pool and Court Pendit Plat happily prolong the season of blossom. For an isolated park Bess Pool is very beautiful, forming a regular, round head and being covered with flower, even to the centre of the tree. It flowers late in May, and surely no flowering tree can be more lovely and none so useful.—EDWARD A. BUNYARD.

— "Anne Amateur" will find the following varieties interesting in the colour of their flowers, apart from the ordinary coloured blossoms of such sorts as Lord Grosvenor, Lady Sudeley and Warner's King, and, what is also in their favour, they produce good Apples: Bramley's Seedling, Sandringham, Castle Major (especially rich coloured buds and open flowers), Arthur Turner and Lane's Prince Albert.—E. M.

— As an amateur grower of dessert Apples, which include American Mother, Beauty of Bath, Cox's Orange Pippin, Coronation, The Houblon, James Grieve, Langley Pippin, Paroquet, Red Astrachan, Ribston Pippin and some newer varieties not in bearing, I should recommend "Anne Amateur" to have some trees of James Grieve planted. I consider it would be one to reach her ideal, both as regards blossom and fruit. The blossoms stand out prominent in beauty of colouring; usually a profuse display, carried on large stems. The fruits are of attractive appearance, of medium size, fit to gather in September, can be eaten from the tree, and are of first-class quality. With me the trees are good growers and regular bearers. The blooms of American Mother are very pretty and later in opening. The trees are of dwarfish growth and not so reliable in fruiting as the former.—P. WAKEHAM, *Kingsbridge, South Devon.*

FORTHCOMING EVENTS.

June 29.—National Rose Society's Metropolitan Exhibition, Botanic Gardens, Regent's Park, London. Royal Agricultural Society's Exhibition, Nottingham (five days).

June 30.—Southampton Royal Horticultural Society's Rose Show, South Stoneham House, Southampton.

A GARDEN IN THE WAR DESERT.

BY OUR SUB-EDITOR, RIFLEMAN H. COWLEY.

A PARTY of five khaki-clad riflemen and one sergeant marched at a slow pace along the main road of the ruined village of Zonnebeke. The heavy strain of many days and nights in the trenches was written unmistakably upon their unwashed and unshaven faces. The men, wearing overcoats, carried their rifles at the trail, with their bandoliers slung loosely over their shoulders. The overcoats were cut to the knee, a sign that the wearers had been through wintry days, wading in the trenches, when the lower part of the overcoats, steeped in mud and water, dragged heavily upon the wearers, and had in consequence been cut away. The party marched on through the ruined village, paying little heed to the scenes of desolation, to which they were only too well accustomed.

The writer of these notes was one of that small party, and as we proceeded I mused lightly upon a message given me by a gardening friend six months ago before leaving England with the British Expeditionary Force. It was, in effect, that should I by any chance get to the little village of Zonnebeke, I was to be sure to call at the Château, where a welcome would await me, and I should find much of interest in the garden there. I made a note of the address, but thought no more of it until our battalion was stationed on the outskirts of the old capital of Flanders, now known as the Desert of Ypres. Our road to the trenches lay through a heaped-up pile of ruined buildings, and this was the one-time pretty village of Zonnebeke. Not a building had escaped destruction, and the inhabitants had fled from their homes, not one of them being left alive in the village. A few scared and half-starved cats, still clinging to their old haunts, were the only signs of life so far as we could see. The church had shared the fate of many other grand old Flemish churches, and while much of it still stood erect, the interior, as I afterwards saw, was a heap of bricks and plaster, piled up with broken chairs and tattered paintings.

The enemy had snipers concealed behind the ruined buildings, and it was in search of snipers that our party of six had started out. We halted outside the church, and were given the order to fix bayonets. The search was then commenced. We were to start at the church and work our way back to headquarters. Leaving the church, we passed on to the wreckage of a mansion a little way back from the main road. Many grand old trees lay uprooted round about. The walls of the house were standing, but the rooms, strewn with shattered glass and broken furniture, presented a scene of hopeless chaos. Letters and other correspondence lay on the floor in one room. With a feeling of intense interest I picked up some correspondence. My suspicions were confirmed, for this indeed was the Château of Zonnebeke! There was little in the Château that had not been destroyed, save one or two oil paintings in their large gilt frames, and, singularly enough, a large mirror was left unbroken upon a wall.

It was not long before I found my way to the spacious garden behind the Château. It was a large walled-in garden of very formal design. Weeds had indeed grown apace, and were running rife throughout the garden. For all that, a bed

of Pansies made quite a brilliant display in the midst of this scene of desolation. It was an excellent strain of large, well-formed flowers of the rarest and richest colours to be found among Pansies. I imagine the owner to have spent many years in raising these flowers to such a high standard of excellence. Sea Pinks and double Daisies made a broken edging to the garden paths and beds of herbs, while one or two lovely bushes of Lavender and Rosemary caught my eye in passing. In one corner of the garden I espied a large circular pool of water that would have made a perfect home for Nymphæas and other aquatics. This hole, however, was made by one of the enemy's largest explosive shells. It was an old-world garden, containing flower borders and fruit trees. The latter had been badly damaged by shell fire, although a fair sprinkling of blossom was then seen. At one end of the garden was the conservatory. Most of the plants had perished, although signs of life were still visible in Chrysanthemums and Pelargoniums. But the good-natured Aspidistras were little the worse for their neglect, while a few succulents, natives of dry desert regions, were having the time of their lives.

There were more serious duties for our little party to perform, and, making our departure through a hole made by a shell in the garden wall, we bade farewell to the Château of Zonnebeke.

INFORMAL AND WILD GARDENING.

BY JAMES HUDSON, V.M.H.

(Continued from page 304.)

THE Wisley Rock Garden will speak for itself and grow more attractive year by year. It was not planted for immediate effect, hence all the plants have room to grow and establish themselves. It is this type of gardening I should like to see encouraged and extended, and especially the wood gardening. Bamboos are frequently seen in other gardens, but I have rarely seen them so effective as at Wisley. They are planted in an ideal position, open to the west, protected on the east, and as informally as one could desire.

Another garden still quite informal, but of greater extent than Wisley, is that at Leonardslee, Horsham, Sussex, the seat of Sir Edmund Loder, Bart. When I was allowed to visit this garden last spring, I was amazed at the extent, the luxuriance and the beauty of it, as well as at the wealth of plants. To enumerate a tithe of them would be quite impossible in the time I have at command. What impressed me most was the utter absence of formality throughout. And this is what I want to impress upon others. There are gravel paths, it is true, but they are quite of third-rate consideration, comfortable and safe enough to walk upon, but little trouble to maintain. Rhododendrons of the choicest kinds—some of them hybrids raised upon the spot—are one of the chief features. Azaleas are there in profusion, and so are many species of the coniferae, all growing in perfect *abandon*. Now why is this? It is the result of great care, forethought and discrimination on the part of the proprietor. Before planting, or extending the planting, every consideration was given to the situations and the plants to be dealt with. This has been done to

perfection. In another spot hardy Palms, *Trachycarpus excelsus*, and Camellias are equally fine; so also is the Rock Garden, where many unique examples are to be seen. This has been established much longer than the Rock Garden at Wisley, hence it is better furnished; but the whole design is quite informal.

I will now allude to a third example of informal gardening, one that is within the reach of the many. It is that at The Wilderness, Shirley, near Croydon, the residence of our energetic secretary, the Rev. W. Wilks, M.A., V.M.H. This garden is practically and to all intents and purposes

"Paths.—In a wild garden the paths must never under any circumstances be of yellow gravel, nor of asphalt or tar, nor of ashes. In open ground they should be grass, kept scrupulously mown. In woodland where grass will not grow they should be the natural soil, trodden hard, and the moss should be allowed to grow on it, if it kindly will. In autumn the leaves from trees must be swept up once a week from the grass paths, or they will kill the grass in patches and soon make it unsightly. In woodland the leaves may lie on the paths and will look very natural; the rustling sound as one walks on them is pleasant to the

run with grass. But any plant which cannot take care of itself after the first twelve months' real care is not a suitable plant for a wild garden. —From the *Royal Horticultural Society's Journal*.
(To be continued.)

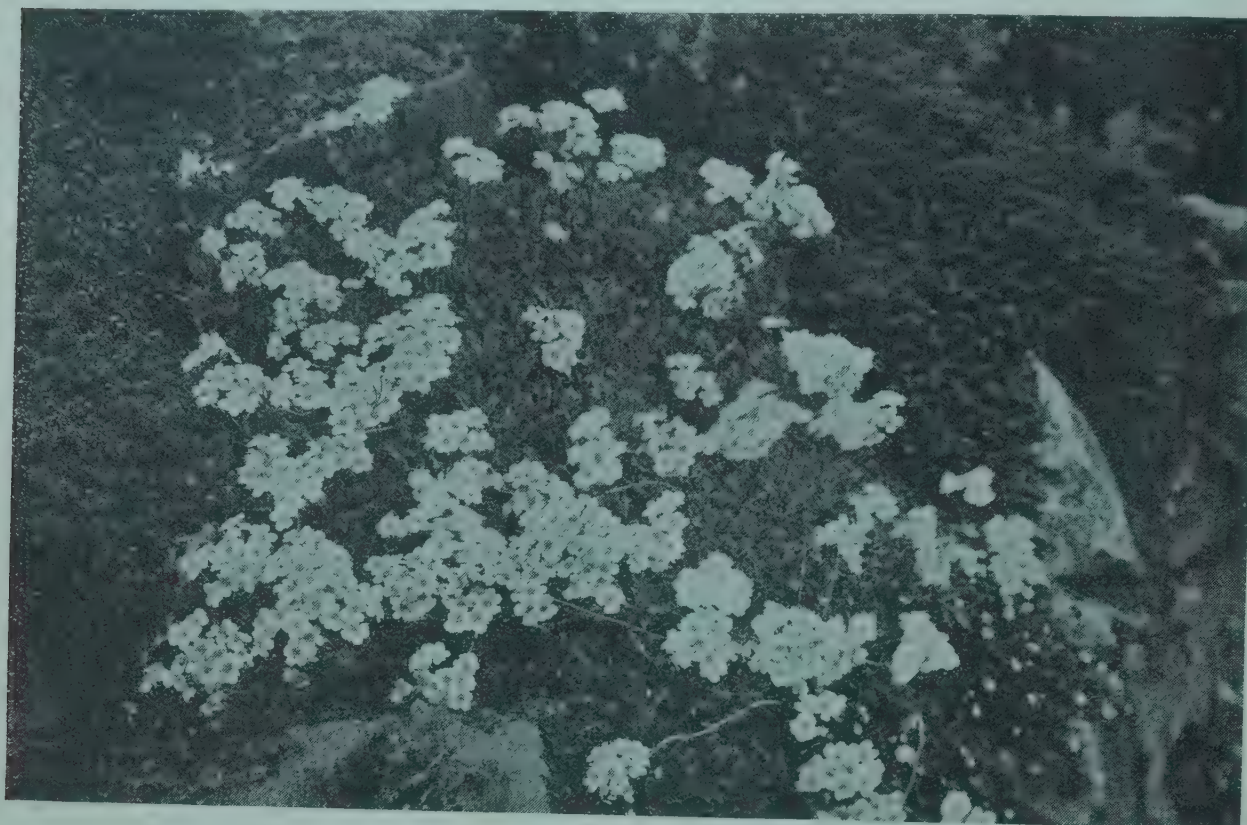
SEASONABLE NOTES ON CARNATIONS.

THE time has arrived when it must be decided how the Perpetuals are to be supported. We see them sometimes with the shoots tied to one stake, which is no doubt suitable for small plants, but for those with a large number of growths one is altogether inadequate. At the same time, in going from the one extreme it is possible to swing to the other, and use more stakes than is needful. Very large plants may require four, and those rather smaller, three. Provided the shoots are each slung independently to one of the stakes, there will be plenty of space for the foliage without crowding.

The stakes may have a slight bias outwards; but, on the other hand, it is to be preferred that they should be upright, so long as they are inserted near the inner side of the pot, rather than be placed at much of an angle outwardly. The foliage of most varieties is so small that there is no need to train the plant other than upright, and this allows for the arrangement of the greatest possible number in the season of flowering. By no means should the staking of the plants be delayed. If it is delayed till the growths are advanced, weak shoots will fall over, and then can never be induced to resume the straightness of growth they have lost.

Errors of Deep Potting.—I have known a very efficient grower to lose many plants from this time onwards from plants rotting at the base of the main stem. The cause of this is deep potting, and it is infinitely better to have that part of the plant partly elevated, rather than ever so slightly covered with soil. The only means of saving a collection when potted in that way is to remove the soil from the surface till the collar of the plant is clear. Another point of some importance is to limit the number of flowering shoots. "Why!" someone may exclaim, "we stop the shoots just to increase the number." That is true. But a plant is capable of doing justice to only a limited number, and he who at this time eliminates every weak shoot will secure a finer class of bloom, and in the end a larger number of flowers.

The Last Stopping.—Just at what date to stop for the last time is a question I am not prepared to decide. I find that the dates given by growers in the South of England do not agree with those I find best. One might suppose in the North that an earlier date would be better. But, then, our plants are grown entirely under glass, so that such free-growing kinds as *Triumph* and *Lady Northcliffe* can be stopped later if flowers are not in request till the beginning of winter. Those of the habit of *Baroness de Brien* must have a much longer season to develop. R. P. BROTHERSTON.



ACHILLEA OBRISTII, A CHARMING WHITE-FLOWERED ROCK GARDEN PLANT.

Mr. Wilks' own design. True, he did not plant the fine old Oaks and other trees, but he so fitted his garden in as to take the fullest advantage of them. The house itself is comparatively new, but it fits in well with the trees and other surroundings. The garden thus appears much older than the building itself. Against the house there is a commodious verandah, then the small but well-kept portion of lawn commences at once and extends a little distance, and then at once begins the wild garden. Upon the lawn, which is kept mown, there are climbing Roses grown as specimens, each one well apart from its neighbour. The chief open view is towards the south, with a good expanse on the western side as well, where there is a mixed border of flowering plants next to the house. Both on the eastern and western boundaries there are plantations of trees, chiefly deciduous. When under the verandah there is an entire absence of formality, look where you will. In the wild garden the paths are narrow, but are kept closely mown. These paths wind in and out to suit the lie of the ground. Mr. Wilks' views, as given to me, are:

"Extent.—The planning of the wild garden must always vary with the extent of its area. A large area cannot be treated exactly like a small one, nor *vice versa*. At the same time, certain points are applicable to all alike.

ear, and they are soft to the feet. They should be swept up, say, twice, or at most three times from October to March. The paths should follow a more or less natural direction, such as anyone would take, but they should avoid turns at right angles and not be over-serpentine. Stretches of straight ahead, followed by gentle curves to right or left, are desirable.

"Ground Surface.—The ground should not be dug or cultivated in any way. Presumably the garden is begun by taking in part of a field, and, if possible, adjoining it should be a small bit of copse or thin woodland. Each wants treating differently.

"The Open Grass Area.—In planting, simply remove sufficient turf and dig a hole, break up the bottom well so as to encourage the roots to penetrate, then throw in the turf and chop it up well with a spade and plant your plant, whatever it may be. And when you have filled in and firmed down, make a sort of small circular bed all round the plant a few inches away from its centre. Give an ample watering and leave it. If this is done in autumn, it will want no more attention (unless it be staking) till March, when, if dry, it should be watered for the first twelve months once a week or so, according to the rainfall, or lack of it. The little surrounding bed should also for twelve months be kept from being over-

ACHILLEA OBRISTII.

THIS charming little plant belongs to a section of the genus which are all of dwarf habit, and have silvery foliage with white flowers. Those best known, perhaps, are *A. umbellata*, with very white leaves and flowers in corymbs, and *A. argentea*, a taller-growing, but still dwarf plant with larger white flowers. *A. Obristii* is a hybrid, probably derived from *A. umbellata*. It is very free in habit; easy to grow in any well-drained position, where it develops rapidly; very free-flowering in most seasons; the flowers last for a considerable time in good condition; while its evergreen silvery foliage is very attractive at all times of the year. Like all the others of this group, *A. Obristii* may be increased by means of cuttings in the summer or division in the spring. As it is a hybrid, seeds would not be reliable. W. I.

A BEAUTIFUL FLOWERING SHRUB.

DURING the last fortnight *Escallonia langleyensis*, a flowering spray of which is illustrated below, has been one of the most beautiful and most admired plants in the garden. It is practically evergreen, and will withstand ordinary severe winters, though a prolonged spell of frost might cut the branches back somewhat. As will be seen in the illustration, it makes long, slender, arching branches, which during June are freely studded with the charming, bright rosy carmine flowers, each about half an inch in diameter. We have it loosely tied to a south wall, where its branches can ramble at will, but it is an excellent shrub for grouping in a lawn bed or the more conspicuous parts of the shrub border. Grown in this way it will eventually attain a height of 6 feet or possibly more. So far as soil goes, it appears to appreciate that which is porous but moderately well enriched. This charming shrub is of hybrid origin, and was raised in Messrs. Veitch's nursery at Langley, Bucks, by crossing *E. philippiana* with *E. punctata*.

SOME HINTS FOR ROSE EXHIBITORS.

THE Rose shows are now upon us, and a few hints may be acceptable, especially to the beginner in exhibiting. It is not too late even now to disbud for the later shows, such as Leamington; but for the Regent's Park Show and others at the end of June, disbudding should have been done some days ago. Many amateurs make a mistake by leaving the side shoots that will start upon a growth carrying the bloom bud. It is well to check these with the thumb and finger as soon as seen, in order that all the strength may be concentrated upon the bud on that particular growth.

Tying the Blooms and Shading are two very important details. Tying is done in order to prevent the flower bursting too soon. A piece of strong wool is placed around the heart of the flower, leaving the outer petals free. Instead of making a knot, give the ends two turns and leave it at that. It can then be tightened or

released as desired. Do not tie a bloom when it is damp with dew or rain and only a day or so before the show. Tie many more than you want to stage, as all will not last till the show day. Very double Roses need not be tied, although it is advisable to place wool very lightly around such, as it helps to retain the exquisite form, the crowning beauty of a Rose. Retain the ties on the blooms until you arrive at the show; but it will be wise beforehand to look at them to see if any are too tight. Delicate-petalled Roses, and especially Tea varieties, may have tissue paper wrapped around them, leaving the point open always. Roses such as *Souv. de Pierre Notting* pay well for this attention, as their outer petals are often marred by the weather. Shading may be done some days before the show. Old straw hats, sunshades, &c., answer for shades; but best of all are the shades offered by the horticultural sundriesmen. See they are placed on a firm stake to prevent injury by wind. Shading is as necessary to secure the bloom from injury by heavy dews as it is from brilliant sunshine. A bud may be retarded two or three days by timely shading, but judgment is essential, or we may defeat our object. Roses glory in sunshine,

obtained from the schedule of the National Rose Society, which will be sent free from their offices, 25, Victoria Street, Westminster. Tubes are very important articles. A Rose is often marred by being placed in a bad tube. Purchase the Foster tubes with wire attachment. These are arranged so that the flower may be well elevated from the box, and blooms so elevated often score largely at the show. Read carefully the rules of the National Rose Society as to the points of a good flower, and endeavour to bring your blooms up to this standard. Nice green moss should be placed on the false bottom of the box. This false bottom is made to place the tubes in—a much better plan than stuffing with shavings, the old-fashioned style. One may think I am enlarging too much upon this matter of boxes; but I have seen most lamentable instances where grand flowers had been staged in most hideous makeshift affairs, an insult to the Rose as it is to the exhibition.

Spare Blooms.—A travelling box should be fitted up to take several spare blooms. I always like to have plenty of these, so that one may have a good choice at the show. A deep box with tubes nailed into the bottom and about the



A SPRAY OF *ESCALLONIA LANGLEYENSIS*, A HARDY SHRUB WITH ROSY CARMINE FLOWERS.

but where flowers are limited, one is naturally anxious to make them hold out. Some Tea Roses grow and develop better in water. I have often cut a bloom three days before a show, kept it in a cool cellar, and it has been one of the best in the winning box.

Boxes and Tubes must be overhauled well in advance, and see that the former are nice and clean, and painted a dark green colour. The sizes must also be attended to when showing under National Rose Society rules. These can be

size of a good travelling trunk, or larger, is the thing. Holes must be provided for air.

Cutting the Blooms is another important detail. Late evening is the best time, even if you are near the show grounds. If cut in the early morning, the flowers should be marked overnight, for any old bloom looks wondrously bright in the morning before the sun is up. Be careful to place the flower in water immediately it is cut. Jars of water carried around answer well, and the flowers can be transferred to the

boxes later on. If you do not know the bloom, be careful to label it when cutting, and also label the spare blooms, especially the reds and yellows, for they are very confusing to recognise when cut.

Staging the Blooms is best learnt by watching an old hand. If the day is likely to be hot, keep the boxes in a cool place, preferably outside the tent, as long as regulations permit, for the average Rose tent is a perfect oven on a hot day. Place the largest blooms in the back row, the medium next, and the smallest in the front row. Try to put the best blooms at the corners, and group the colours to harmonise. Do not place two reds together unless it be diagonally. Study well what is a three-point flower, and do not be led away by your own fancy to retain your favourite if it happens to be a flimsy sort, with which our collections abound. See that you have no duplicates, for this will disqualify. Keep the lids on

THE EARLIEST ROSES TO FLOWER.

By EDWARD MAWLEY, V.M.H.

I SHOULD like from my own experience to support "Danecroft's" excellent remarks in *THE GARDEN* for June 12, page 291, on the value of these early flowering Roses. Many of them are not only beautiful and interesting in themselves, but, being the first Roses of the year to appear, are consequently welcomed with greater delight and attract more attention than many of their more pretentious brethren which come into bloom later in the season.

As was the case with "Danecroft," the first Rose to flower in my garden this year was that remarkable variety *Rosa sericea pteracantha*, which he so well describes. It is further inter-

I have lately seen here (Berkhamsted) some plants of this variety trailing downwards over a terrace wall, where hundreds of their flowers were displayed to the greatest advantage. On June 3 appeared the first of my *wichuraianas*, *Diabolo*, with its dark glowing crimson blooms.

To go back to May, *R. xanthina* first flowered on May 25. The light and graceful upright growth of this distinct variety and its clear lemon yellow flowers make it very acceptable at this season. Then, on May 29, appeared *Irish Elegance* the most charming of all early flowering Roses of its class. But the greatest treat of all, and that earlier in the month, was provided by an old plant of Austrian Copper growing on a greenish grey fence at the top of my Rose garden. When at its best, there were over a hundred flowers fully out upon it.

It may not be generally known, but this is one of the very oldest Roses grown in this country, dating back to 1596. Moreover, it makes an excellent Rose for growing under glass. I have a plant of it which I have had for nearly twenty years. When it is taken into the greenhouse in the winter, it always looks as if it had no life whatever left in it, but invariably comes up smiling in the spring, and its flowers are as a rule much better coloured than those from plants I have in the open ground.

WHERE TO GROW CLEMATISES.

Now that many of the Clematises are flowering is the time to make notes of any particularly appropriate situations in which they may be found growing, so that when planting-time comes round, full use may be made of one's observations. There is no doubt that the majority of these charming climbers do best where they have ample space, so that their vigorous growths can ramble about almost as they please. The accompanying illustration represents large-flowered Clematises planted on either side of a bold flight of stone steps, a position that is rather unique, but one that is admirably adapted for the plants. Here the growths and flowers wreath the brick balustrades and transform the whole into a pleasing garden picture.

I remember seeing, a few years ago, the Winter Jasmine growing in a similar position, where it was most effective. G. M.

RAMBLER ROSES BY WATERSIDE.

DURING the summer one of the most beautiful effects at Kew is obtained by Rambler Roses beside the large lake in front of the Palm House. At either side of this lake the surrounding soil, which is several feet above the level of the water, is kept in position by cement walls, which, if left bare, would be entirely out of keeping with the surroundings. Some years ago the idea of planting Rambler Roses at the top of the wall was conceived, and with this end in view the soil next the wall was dug out to a good depth and to about three feet in width, and the trench filled with good, stiff loam and manure. In this new soil such *wichuraiana* Roses as *Dorothy*



CLEMATISES WREATHING STONE STEPS AT SHIPLAKE COURT.

the boxes, also the ties on the blooms, until the last moment; but the lids should be slightly raised to admit air. As the flower grows, loosen the wool, or you will mar the bloom considerably. You may remove any blemish from a flower, such as injured edges to petals. A pair of scissors is handy for this, and a camel-hair brush is also needed to press out the outer petals. Do not alter the character of the Rose by the disgraceful "dressing" adopted by some exhibitors. Judges are very severe upon this, and rightly so. Above all things, do not be tempted to use any flowers but those grown by yourself, except, of course, in the competitions in the table decoration classes, where purchased flowers are admissible. Otherwise all flowers must be grown by the exhibitor, and it is not only mean, but dishonest, to attempt to win prizes with blooms grown by another.

Eastwood, Essex.

W. EASLEA.

esting owing to its small, pure white flowers having but four petals. This was first in bloom on May 14. The next day *R. alpina* appeared. Its flowers are very freely produced and it makes a big bush, but owing to the dull shade of its rose-coloured blooms is not otherwise interesting. Four days afterwards came *R. rubella*. Owing to the clearer colour of its numerous flowers, it is, to my mind, much better worth growing than *R. alpina*, which it otherwise greatly resembles. It is further endeared to me as my two plants of it came from a garden at Reigate, where I spent many happy days of my boyhood. That most delightful silvery pink variety *R. sinica Anemone* first showed an open flower on June 1. This is a perfect gem among early climbing, trailing or pillar Roses, for the blooms, which are 3 inches across and of good substance, are refined and beautiful, and the glistening foliage sets them off admirably.

Perkins and Lady Gay were planted, and since then they have made rapid progress, so that, now the long, slender shoots hang suspended over the wall, some of the more venturesome reaching well into the water. When in flower these Roses create a charming effect, and instead of ugly cement walls, pink cascades of Roses are to be seen, the accompanying illustration giving a good idea of their beauty. Even were the bank an ordinary one of soil without a retaining wall, the same method might be adopted, though in such a case the growths would need pegging down to the soil to keep them in place. It may be well to remind those who grow these wichuraiana Roses that the old flowering wood should be cut away when the flowers have faded, so as to enable the young rods that form this year to become thoroughly ripened. If this is done there will be less danger of injury by frost during the coming winter, and the prospects for flowers another year will be enhanced. H.

trio in the character of red spider, aphides and Apple sucker. The first insect is responsible for the sickly yellowish appearance observable just now where this pest may be present on Gooseberries, and Apples in particular. Aphides, in the form of green, purplish or black flies, are familiar to all. Apple sucker is less known, but a very general pest, and its presence may be

readily discovered by the snow white globules secreted from and generally attached to its body. Their favourite resort is the inflorescence of the Apple.

As these three species may be, and generally are, present on the same tree at the same time, a general summer spray fluid is desirable. Those proprietary washes containing nicotine are

SUMMER SPRAYING OF FRUIT TREES.

SOME PRACTICAL HINTS.

THE spring of this year has proved eminently favourable to the development and multiplication of the insect enemies of fruit trees and bushes, and to those who value the healthy growth of their trees, as well as good fruit, summer spraying becomes more imperative than ever. There is no lack of summer washes on the market—one is tempted to think a surfeit—and, unless the fruit cultivator is interested in the preparation of his own washes from simple ingredients, the use of these proprietary preparations is recommended for convenient application, particularly in the case of small fruit areas. Many cultivators of fruit have an aversion to the use of those washes containing poisonous ingredients such as arsenic, copper, nicotine, &c., but in view of the very low percentage of these substances actually used in the wash, and by carefully observing the directions for application given with the preparation, no results deleterious to the human system will accrue. Moreover, further reassurance is afforded by the very general use of these particular washes by large fruit-growers. One other point to be realised is that the efficacy of an insecticide or fungicide is as much dependent upon the thoroughness of its application as upon its own intrinsic merits.

Sucking Insects.—In this category we have represented in the fruit garden a most formidable



WICHURAIANA ROSES DRAPING A CEMENT WALL BY THE WATERSIDE.

particularly suitable. A wash of this character can be made by adding 1½ oz. of nicotine (98 per cent.) to 1 lb. of soft soap dissolved in hot water, and diluting the whole up to 10 gallons. This, however, more largely concerns the large fruit-grower, since nicotine is rarely obtainable in a smaller quantity than 1 lb., at an average cost of 12s. For the destruction of sucking insects generally, nothing excels a non-poisonous wash with the following formula: Quassia chips, 1 lb.; soft soap, three-quarters of a pound; liver of sulphur, 1½ oz.; water, 4 gallons. The writer used this quite recently with complete success, young leaf caterpillars also being killed. Prepare by boiling the chips for two hours, or soaking in cold water for forty-eight hours; dissolve the soft soap and liver of sulphur, add it to the Quassia solution, and dilute to 4 gallons.

Biting Insects.—These are represented mainly by the larvæ of Gooseberry sawfly and the caterpillars of the winter moth (*Cheimatobia brumata*).

Fungoid Diseases.—Apart from Apple canker and silver-leaf of Plums—two diseases against which summer spraying is of little or no avail—there remain but three other diseases of great importance in the fruit garden, which, if present, will need prompt and thorough treatment. Reference is made to Apple and Pear scab (*Venturia inæqualis* and *V. pirini*, Aderh.) and American Gooseberry mildew. The dire character of the latter is known only too well to most people now, while the two former are responsible for much depreciation in value, appearance and premature decay of the fruits concerned. Fortunately, Apple and Pear scab is easily preventable when taken in time. As soon as the petals have fallen, spray with half-strength Bordeaux mixture, *i.e.*, copper sulphate, 1 lb.; quicklime, half a pound; water, 16½ gallons. It is much more advisable, however, to purchase a small quantity of proprietary Bordeaux paste, which can be used at whatever strength is needed. A second appli-

A PEACH "DUG-OUT." AN INTERESTING GARDENING FEATURE.

BY THE REV. JOSEPH JACOB.

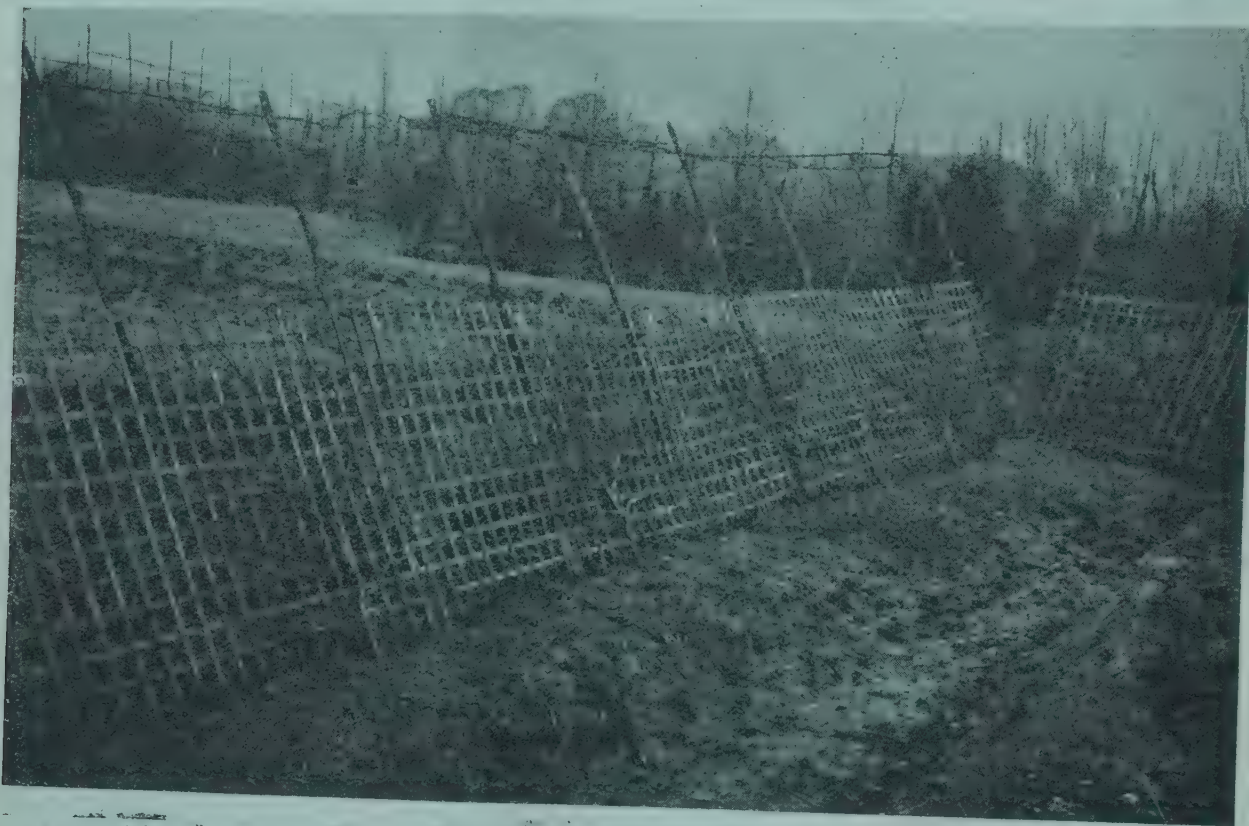
THOSE familiar with old gardening books of the last century may have come across a method of growing Grapes by what was called Rivers Ground Vinery. A space of, say 14 feet in length and 2½ feet wide was paved with slates, and over this was placed a span light frame with proper ventilation. In this Grapes were grown and ripened, the bunches resting on the slate bottom and the roots being in the open ground. This had its origin in the "Curate's Vinery," which consisted of a slate-lined furrow covered with glass, in which the bunches hung. In both cases advantage was taken of the ripening power of the earth's surface, and a considerable part of their success depended upon its being utilised.

Viscountess Wolseley recently had to solve the problem of how to grow Peaches and Apricots without the assistance of a wall or of any glass structure. It was necessary that the pupils at Glynde should be taught how to prune and manage the above fruits. A happy inspiration suggested the idea of a wide trench with sloping sides, against which a wooden trellis might be fixed on which to train the trees. As will be seen from the illustration on this page, this has been done, and Lady Wolseley has had the satisfaction of knowing that it works very well.

I ought to explain that her garden is on the side of a steep hill facing nearly due south, so there has been no difficulty about drainage. The following are some of the principal measurements: Distance of trellis from the side of the trench, 2 feet; width of trench at the bottom, 6 feet; height of slope facing due south, 5 feet. The ends are made use of, but not the slope facing

north. I fancy, however, that it would be quite feasible to grow Morello Cherries or Apples in this position, especially if the bottom of the trench were made a little wider, or even if the trellis on the south slope was only a foot away from its surface instead of 2 feet. The trees which are at present on the trellis are Apricots Breda and Waterloo, and Peaches Amsden June, Dr. Hogg and Early Alexander.

As there are gardens all over Great Britain which are situated upon the slopes of hills, or where adequate drainage can be given with but little expense, it has occurred to me that there are some who will be glad to know of the Peach tree trench. At any rate, it may suggest a scheme whereby this delicious fruit may be grown at a minimum of cost. In giving the dimensions of the trench at Glynde, I do not mean to say that these are the only ones suitable. Each trench must be made according to local requirements and necessities.



AN INTERESTING METHOD OF GROWING PEACHES AT GLYNDE, SUSSEX.

The Gooseberry sawfly larvæ, easily identified by their jet-spotted, green, caterpillar-like bodies, are deplorably neglected, though so easily destroyed. Against them the Quassia wash recommended for sucking insects will be found effective, and will in no way interfere with the gathering and using of the berries. "Katakilla" is another excellent non-poisonous wash. Finally, there is Hellebore powder, which may be dusted on the leaves or mixed carefully with water (half an ounce to a gallon) and sprayed on with a syringe or a knapsack sprayer. This latter method is the more economical and effective. In spraying, particular attention should be paid to the lowest and central leaves of the bush.

Against winter moth caterpillars no specific is superior to lead arsenate, half an ounce to a gallon of water. This is obtainable in a paste form in even such a small quantity as a pound. Apply it to trees immediately after, but not before, flowering is finished.

cation is urged within a fortnight of the first. Bordeaux paste can now be obtained in combination with arsenate of lead, and wherever caterpillars are present and an outbreak of scab is feared, this mixture should be used.

American Gooseberry mildew is the most frightful of fruit diseases. Growers ought to be ever on the alert for its appearance. An occasional spraying of 1 oz. of liver of sulphur to 2½ gallons of water as a preventive is a wise course if the disease is present in the district. Should the disease appear in a slight and sporadic manner, as many of the affected leaves and shoots as is practicable should be carefully removed and dipped in paraffin and burnt. Then proceed at once to spray with the above solution of liver of sulphur, or, if the berries have been gathered, use full-strength Bordeaux mixture. American Gooseberry mildew is, of course, notifiable.

Morpeth.

C. W. MAYHEW.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Layering Strawberries.—There will now be plenty of runners suitable for layering if a planation has been made for this purpose. Fill a number of 2½-inch or 3-inch pots with loam, and plunge these between the rows of plants in the bed. The extra labour involved now in plunging the pots will be amply repaid during very hot weather, as the plants will not require so much attention to watering as they would if the pots were exposed to the sun. Select only the best runners, and secure these to the pots with pegs or short pieces of raffia pressed firmly into the soil. Damp the layers frequently with a rose can till they have rooted into the new soil. I have not yet found a better Strawberry for forcing than Royal Sovereign.

The Early Vinery.—If a suitable room is available, the last few bunches can be cut from the Vines and placed therein, where they will keep quite as well as though they were left on the Vines. The Vines may then be given a good soaking of clear water. If red spider is present, the foliage must be thoroughly drenched with an insecticide on two or three occasions. Afterwards the Vines can be syringed every evening with clear water. The ventilators may now be thrown wide open day and night.

Plants Under Glass.

Humea elegans.—These are now developing their inflorescences, and if the plants are not required at the present time in the conservatory, they should be placed in a shady position outdoors. Water must still be applied with great care, or some of the plants may yet be lost. Shift on the young plants as they become large enough, but do not overpot them or afford water carelessly. Keep them shaded from bright sun.

Chrysanthemums.—Pot the plants into their flowering pots as they become ready. They may then be arranged in their summer quarters. Recently potted plants must be carefully watered till they have become fairly established in the new soil. A good spraying with the garden engine is necessary twice daily during hot weather. If time will allow, the decorative plants should be plunged in ashes; this will save a great deal of time in watering, and will also be of considerable benefit to the plants.

Lilium speciosum.—The growths of this beautiful Lily will now need the support of stakes. Give the plants a top-dressing of rich soil, as roots will now be plentiful. Syringe them occasionally with an insecticide to keep them free from aphids.

Streptosolen Jamesonii.—Young plants rooted in the spring must be potted on as required. To keep them shapely, the strong shoots should be kept pinched. During the latter part of the season they may be placed in a sheltered position outdoors, plunging the pots in ashes. This charming plant can be used effectively both in the conservatory and in the flower garden.

Lapagerias.—Where these are trained to wires, the young growths must be regulated almost daily. If the plants are grown in pots or tubs, plenty of stimulants must be given. An occasional light fumigation will keep them free from aphids.

The Flower Garden.

Ornamental Gourds.—These are interesting objects for growing over pergolas, arches or lattice-work. They may also be used for covering the faces of large boulders. When in active growth, they need plenty of water. The growths must also be thinned and regulated.

Early Flowering Chrysanthemums.—Give these plenty of water at the roots, and syringe them occasionally with an insecticide to keep them clean. A mulch of short manure should be placed over the roots. To prevent damage from strong winds, the plants must be supported with stakes.

Agapanthus.—To keep these in good flowering condition, the plants need plenty of stimulants all through the summer months; therefore this must not be lost sight of while they are flowering. Liquid farmyard manure suits these gross-feeding plants well.

General Work.—When the bedding-out is finished, advantage should be taken of fine weather to destroy weeds in the shrubberies. Grass edgings will need clipping, and weeds must be removed from roads and paths. Mulch gross-feeding plants as much as possible, and hoe frequently between herbaceous plants during hot, dry weather.

The Hardy Fruit Garden.

Protection of Fruit.—Much disappointment will be saved by taking early measures to protect fruit from birds. The protecting materials should be so adjusted that the fruit may be gathered without removing the nets.

The Kitchen Garden.

Globe Artichoke.—This valuable vegetable requires abundance of water at the roots, also plenty of liquid manure, in order to have the best crowns. A mulch of some manurial substance is invaluable during the summer months.

Spinach.—A cool situation should be chosen for growing this vegetable during the summer months. It is a crop which needs plenty of water, and if a light dusting of well-seasoned soot is scattered between the rows prior to watering, the plants will derive great benefit.

Peas.—The plants which are in bearing must be watered during dry weather, or the pods will fail to fill. If this work is done in the evening, the plants may be sprayed; indeed, it is an excellent practice to spray them every evening during hot weather. Late Peas should be given a good mulch as soon as they are staked.

General Work.—After heavy rains the ground between all crops should be hoed. The hoe must also be kept constantly on the move during long spells of drought. Persevere with the mulching of such crops as Runner Beans, Dwarf Beans and Peas. Onions which have been planted with a view to getting very large bulbs should also be mulched. Well-seasoned horse-manure is excellent for this purpose.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

The Hardy Fruit Garden.

Summer Pruning.—Plums and Pears should now be pruned to admit more light to develop the fruit, also to assist in the ripening of the remaining wood. In the case of wall trees, the shoots which are retained for the extension of the trees will require tying into position. This is more easily done at the present time than later, when the growths have hardened, as they are then more unwieldy.

Insect Pests are usually more troublesome on trees growing against walls, and require occasional spraying with Quassia Extract or other insecticides to keep the trees clean.

Strawberries.—Stock required for planting new Strawberry ground should be raised early by layering in pots as soon as runners are available. This practice may entail a little more time and trouble, but repays itself by producing better established plants for setting out at the proper time.

Fruit Under Glass.

Young Peach and Nectarine Trees which are being grown for filling up the places occupied by any older, worn-out trees should be kept very clean and free from insect pests. If disbudding received proper attention earlier, no cutting out of growths will be needed at any time. The young shoots must be tied in as straight as possible, and any that are forming laterals should have them pinched off.

Early Peach-House.—The trees, having been cleared of their fruit, must have a thorough cleansing with an insecticide. Good growing conditions should exist, keeping the atmosphere humid by syringing twice daily; this ought to be done with a fair amount of force to try to keep red spider in check. Assistance with manure should be given at each watering of the border,

which will require water fairly frequently if the trees are well established and the drainage in the good order that it should be.

The Flower Garden.

Shrubs and Trees which were transplanted during early spring require a certain amount of attention during this season if they are to recover from the check of removal. This especially applies to large specimens. Water may be needed at the roots, but too much should not be given, for it might prove harmful, as in the case of Rhododendrons and Yews. By far the best treatment is to try to encourage growth by frequent syringing, and even shading by some means will be of great help during the hottest part of the day.

Rock Garden.—The present time is a good season for propagating many subjects of this garden. As a number of species are very often short-lived, young stock to take their place must be obtained from both seeds and cuttings. Some of the kinds are best sown on the site which they are to occupy. All cuttings should be inserted in a frame containing plenty of sharp, gritty sand and must be kept plump and fresh until rooted by occasional light sprayings, and also by keeping the frame closed and shaded.

Plants Under Glass.

Chrysanthemums.—The plants will now be rooting freely in their flowering pots, and should be staked before there is any danger of wind breaking off the foliage or shoots. The single-stemmed plants can then be secured to wires drawn tight by posts. The bush plants can either be secured to wires or partly plunged, to protect them against wind. This latter method has great advantages if the season is a dry one. If fly is present in the points of any growths, Tobacco powder can be used, or an insecticide applied by spraying. In very warm weather a damping down of both plants and the immediate surroundings will be very beneficial if done during the afternoon.

Calceolarias for spring flowering should now be sown. Use a light, open soil containing plenty of leaf-soil and sand. After sowing, stand in a well-shaded cool pit, and continue to give cool treatment after the seedlings appear.

Hydrangeas can now be propagated, which is very easily done by inserting cuttings of half-ripened wood singly in 3-inch pots and keeping them close and shaded for a time, either in a frame or under hand-lights.

Calanthes, which are now growing apace and getting well rooted, will be ready to receive additional food when being watered. Liquid made from cow-manure is generally best, but substitutes, such as a little guano or soot-water, will do if applied in a weak state.

The Kitchen Garden.

Cauliflowers.—The planting of all Cauliflowers must now finish for this season. Any plants which have turned blind should be replaced. The proportion of blind plants is usually big, even in that finest of all maincrop varieties, Veitch's Autumn Giant.

Leeks.—The main crop will be ready for planting. The best method when putting in large numbers is to make a hole with a dibble 7 inches or so in depth and just allow sufficient soil to fall in; enough to cover the roots. Early raised plants which were put out in trenches should have assistance from manure, which must be given with an application of water.

Lettuces at this season quickly run to seed; therefore it is necessary to make successional sowings at not greater intervals than a fortnight. The hoe should be used between the plants frequently to encourage quick growth; but if the ground is very dry, watering will be necessary. To get Lettuces crisp and tender, they should be sown on good ground which has been treated liberally with manure; this ensures quick growth, which is necessary to obtain good Lettuces.

Broad Beans.—To hasten the development of this crop, the tops of the plants should be nipped off. This will also be the means of destroying undesirable insects, which are nearly always to be found in the growing points of Bean plants.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

SHOW AND FANCY PELARGONIUMS.

AMONG flowering plants that were at one time exceedingly popular but have now almost dropped out of cultivation must be included the members of these two sections of Pelargoniums. It is not so many years since they were to be met with in all gardens, and large specimen plants used to form a prominent feature at the various summer exhibitions, particularly at some of the more extensive provincial shows.

One often hears show Pelargoniums referred to nowadays, but very few of the true show varieties are in cultivation. The old-time florists used to look upon the following features as constituting a show Pelargonium: In the first place, it was very necessary for the edge of the petals to be quite smooth and the lower ones self-coloured, or, at all events, without pronounced spots or blotches. The two top petals were very dark, almost black, with a narrow, bright-coloured edge and a light centre. The last raiser of the true show Pelargoniums was the late Mr. Foster of Clewer Manor, near Windsor, and his new varieties used to be propagated and distributed by Mr. Charles Turner of Slough. The annual advent of these new varieties was eagerly anticipated, and prices ruled high, namely, from 15s. to one and a-half guineas each. A few of Mr. Foster's varieties are still grown, but only to a very limited extent. Their decline in popularity was, no doubt, owing to the fact that in order to obtain flowers as perfect as possible and very brightly coloured, the process of in-and-in-breeding was carried to such an excess that many of the newer kinds were of so weak a constitution that as decorative plants they were not the equal of the numerous varieties grown for market, and known as decorative, French or spotted Pelargoniums.

Varieties of these different sections are now often referred to as shows, though they are markedly different from the true show flowers, of which a typical kind still occasionally seen is Achievement, a particularly bright flower, with almost black upper petals. The trusses, however, are too few flowered to please the average gardener, though, as far as individual blooms are concerned, it is unsurpassed.

The fancy kinds, which originally, no doubt, sprung from a different species to those referred to above, have small flowers, for the most part lightly coloured, but borne in the greatest profusion. Though these were often grown as specimens, the plants, as a rule, were not as large as those of the show varieties. The universal desire for size which is such a marked feature of the present day is, no doubt, the reason of the decline in favour of the fancy Pelargoniums. H. P.

ROSE SOUVENIR D'ELISE VARDON.

WHY is it this beautiful old Rose has fallen into comparative desuetude? I have before me as I write a most lovely specimen cut from a maiden plant, and for exquisite form I have seen few blooms its equal this year. It was thought when William R. Smith was introduced we had obtained

a variety that would supersede Souvenir d'Elise Vardon, but it has failed to do so. Although one may have grand blooms of the newer Rose, a very large proportion of them appear "split" or "cracked," as a fellow judge would continually term them when I was judging with him last year. In most catalogues Souvenir d'Elise, as it is most generally named, comes under the appellation "recommended for exhibition only," and I could not advise the novice to grow it. I am, however, certain that this variety is typical of many Roses we have almost lost in its need of special treatment, and given that treatment it would be a success.

My firm belief is that for such Roses we need to spare the knife, but to generously feed the plant. Once obtain a vigorous plant established in a good, deep soil in a sheltered position, it is capable of giving us glorious bloom in abundance. I have a fine plant of Marie van Houtte, growing against a west wall, that has had no pruning this year, but has had abundance of liquid manure. It is now yielding lovely blooms of most charming tinting. I do not say Souvenir d'Elise Vardon will grow quite like this, but it will make wood if allowed to do so.

We have abundant evidence of the success of the "let-alone" principle as regards Tea Roses in specimens met with under glass. I have seen plants of Niphetos, Souvenir d'un Ami, and even of that superb Rose La Boule d'Or grow into huge specimens under glass when sparsely pruned. These plants were nourished with blood manure and other rich food, and were a glorious picture of robust health. Of course, outdoors we have the frosts to contend with, and this is a serious drawback to success; but if we can only bring the plants through the winter and spring with their old wood uninjured, we may have splendid blooms in abundance. Such grand Roses are worth the expense of special glass covering for the winter, and this could easily be managed by the aid of pit lights. I would advise growing some of these fine old Teas on the Polyantha stock. They make plants double the size in the one year.

This stock, long ago recommended by that very observant rosarian, the late Mr. Girdlestone, is one all who love Tea Roses should endeavour to use for the true Teas. Even that poor grower, George Schwartz, will make quite good plants upon it, and Lena and such-like are very fine, big plants this year. Souvenir d'Elise Vardon was sent out in 1854, and it figured largely in the prize boxes of the early sixties. DANECROFT.

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

Offices: 20, Tavistock Street, Covent Garden, W.C.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

IRISES DISEASED (N. S.).—The Irises are attacked by the disease known as rhizome rot, due to the entrance into the plants of a bacillus which produces a kind of soft rot. This disease is apparently encouraged by lime, and usually follows damage to the plant by frost or some similar cause, the more tender Irises being most liable to it. The best treatment is to remove the parts of the plants suffering and to replace the soil about them with fresh, in which superphosphate at the rate of about three ounces to the square yard has been mixed.

CALCEOLARIAS FOR INSPECTION (H. E. H.).—Your Calceolarias are attacked by a disease, probably of fungus origin, which very frequently attacks these plants. It is unwise to grow them year after year in the same soil, and if you desire bright yellow flowering plants, it might be possible to put such a subject as *Tagetes signata pumila* in their place. In addition to "rotation of crops," so to speak, the addition of lime to the soil in the autumn, according to the directions we have frequently given, is very desirable. Nothing can profitably be done this year.

TREES AND SHRUBS.

ALMOND LEAVES FOR INSPECTION (Boris).—The Almond leaves sent are attacked by the fungus which causes the too well known leaf-curl or blister of Peaches—*Exoascus deformans*. Recent experiments in Australia, California and this country suggest that the disease may be kept in check by spraying while the plants are dormant, about the middle of February, with Bordeaux or Burgundy mixture, or even with potassium sulphide.

HOW TO GROW CEANOTHUS (E. T.).—If you can procure a plant of *Ceanothus veitchianus* in a pot, you may plant it at once. It will succeed against a wall with a south, east or west exposure, and should be given well-drained, moderately light, loamy soil. Any necessary pruning should be done as soon as the flowers fade. Prune back any secondary branches that are not required for the extension of the plant. Such branches may be cut back to within two or three eyes of the older wood. September is the best month to divide plants of Pink Mrs. Sinkins. Cuttings may be taken as soon as the flowers fade. They should be inserted in light, sandy soil in a close frame.

WISTARIA FLOWERS FALLING (E. S. Martin).—It is probable that root trouble has to do with the flowers of your Wistaria falling before they open. If the roots have penetrated into very poor soil, such a result might be expected, while the same result would occur if the soil were liable to become very wet or very dry. We advise you to have the soil removed from about the outer parts of the roots and make up the deficiency with rich loamy soil. If you find that the soil about the roots is very dry, give it a thorough good watering. The Magnolia will doubtless bloom freely in a few years' time. Young plants are often shy flowerers, especially if they have been raised from seeds. You cannot, with safety to the plant, do anything to hasten flowering.

ROSE GARDEN.

SPORTING OF ROSA LUTEA (J. C. S.).—Yours is no uncommon experience. We have frequently seen branches of the Yellow Austrian Briar, known as Rosa lutea, appearing upon a plant of the Copper Austrian. The explanation is that the Copper Briar sported originally from the Yellow, and it now and then reverts back to the original. The Copper Briar, known as bicolor and also punicea, has been very lovely this year, the colour being most gorgeous in the brilliant sunshine. We fear the Yellow form is often sold for the Copper, simply through error in taking buds from the sportive branches.

THE GREENHOUSE.

ACHIMENES NOT THRIVING (Enquirer).—The Achimenes have apparently been attacked by mites.

The best thing to do will be to prepare a "dip" for them by kneading a quantity of flowers of sulphur into a handful of soft soap and dissolving the whole in $1\frac{1}{2}$ gallons of warm water. Dip the foliage into this two or three times at intervals of a few days.

FRUIT GARDEN.

GOOSEBERRY SHOOTS FOR INSPECTION (Miss A. J. S.).—The shoots of Gooseberry sent are in such a dried-up condition that it is impossible to tell what is the trouble with them or to what it is due. They are certainly attacked by aphids, and this may possibly be all, but there may be something else. Spray with Quassia and soft soap. Correspondents would make the work of identifying diseases and pests, as well as the naming of plants, much more easy and certain if they would always wrap the specimens in a piece of soft paper and enclose them in a tin, wood or strong cardboard box.

KITCHEN GARDEN.

ASPARAGUS-BEDS A FAILURE (E. M. Wild).—Heavy soil is not good for Asparagus, which is a native of our coasts, and grows naturally in sandy soil. Your best way to make a new start will be to dig up the beds now, adding more manure and plenty of road grit, thus raising the surface of the bed 5 inches or 6 inches above the level of the soil of the garden. This will cause the soil of the bed to be warmer and better suited to the growth of this plant. Instead of planting roots, sow the seeds now. It is rather late, but not too late. Sow three seeds where the plants are to remain. As soon as the young plants are above the ground, carefully pull up the two weakest plants, leaving only one (and that, of course, the strongest) to become the permanent occupant of the bed. It will take a little longer before the beds come into bearing, but you will find it more satisfactory in the end than planting three year old roots.

MISCELLANEOUS.

FUNGI FOR NAMING (Mrs. M. B.).—No; the fungi you send are not Truffles, but Puffballs. Truffles grow completely underground, and never emerge into the air. No doubt the mycelium (or spawn) of the Puffballs lives and feeds upon decaying vegetable matter, grass roots and the like in the soil.

GRUBS FOR INSPECTION (J. Burney).—The grubs you send are those of the daddy-long-legs, or crane fly. They are often called leather-jackets, and are very destructive pests to all sorts of garden plants. Constant stirring of the soil, so as to expose them to such birds as starlings, is a great aid in keeping them in check. The next best thing, where the area is small, is to trap them by means of pieces of Carrot or Potato placed near their haunts and examined at frequent intervals.

INFORMATION ABOUT PLANTS (F. E. C., St. Asaph).—The specimen marked No. 1 is the Cucumber Tree of North America (*Magnolia acuminata*). It should be propagated by seeds, which sometimes ripen in this country, but are usually imported. Good loamy soil forms the best rooting medium, although it appreciates a little leaf-mould or peat placed about the roots at planting-time. No. 2 is the Cotton Lavender (*Santolina Chamæcyparissus*). It can be easily increased by means of cuttings dibbled into sandy soil in a close frame in the summer.

INSECTS FOR IDENTIFICATION (Colonel D.).—The insects sent are weevils, called Raspberry weevils, belonging to the genus *Otiorhynchus*, to which we have frequent cause to refer in our "Answers to Correspondents" columns. They are destructive pests, and damage a variety of plants, especially fruit trees of various kinds and Vines. The curved white grubs feed at the roots of greenhouse plants, Ferns and the like. Injection of carbon bisulphide into the soil where they are feeding checks them; but the best means of dealing with them is (1) clean cultivation (especially absence of grass); (2) shaking the attacked trees or bushes over a newspaper or cloth after dark, or suddenly shining a bright light upon them; (3) spraying the bush on which they are feeding with lead arsenate.

PLANTS TO GROW IN EMPTY ROOM (Dolchin).—Plants likely to succeed under the conditions named are decidedly limited in number. Nothing is said as to the ventilation of the structure, upon which in plant culture so much depends. In the lightest portion of the room you may grow such subjects as are to be seen in cottage windows, such as Pelargoniums of the Ivy-leaved and Zonal sections, Begonias, Fuchsias, Heliotrope, *Francoa ramosa*, Harrison's Musk, Lantanas, &c.; while in the more shaded parts, plants that succeed in the dwelling house are available. Aspidistras, Palms, *Araucaria excelsa*, *Aralia Sieboldii*, *Asparagus Sprengeri*, *A. plumosus*, *Cordylina australis*, Myrtle and the hardier forms of greenhouse Ferns would be suitable. We are advising you on the supposition that there is sufficient heat in the winter to keep out the frost; if not, the choice is even more limited. In that case you would probably find a collection of hardy Ferns to give you as much pleasure as anything. In the lightest part, if safe from frost, a collection of the more interesting and showy Cacti could be grown.

MAKING A PAVED WALK (E. W.).—If you require a paved walk that will also permit of plant-growing, it would be necessary to remove all the gravel to a depth of 9 inches at least between the stones and of a sufficient

depth under the stones to permit of their being sunk to the proper level. The interstices between the stones would have to be filled with moderately good sandy loam freely mingled with grit or old mortar, a mixture which would suit many plants. If the sandstone to which you refer weathers and wears well, and is available in thin, slab-like form, it would do quite well. All that is required of the stone is that it should have one flat surface to permit of walking on in comparative ease. Doubtless such a stone is available near by, though, as we know, most of the sandstones are of solid block formation. If you have had no experience in the matter, it would be better to confer with a specialist on the spot. Should you decide to do this, we might probably be able to name someone suitable.

LIME FOR CLAY SOIL (M. B.).—The best form in which to add lime to clay soil is that of unslaked lime; the second best, slaked lime. Ground unslaked lime is the most convenient form; but if this is not readily obtainable, the lumps may be used. If ground lime is available, it should be dusted on the soil at the rate of a bushel to each two square rods. If the stone lime is used, use it at the same rate and put it in heaps covered with soil for about three weeks, when it will be found to be in a powdered condition and easily spread. It should be applied in the autumn, when no crops are on the ground and before the autumn digging. Do not put farmyard or stable manure on the soil at the same time, unless it is dug in immediately. Bees usually pollinate Marrow flowers, but if there are no bees, it would perhaps pay to hand pollinate them. If you examine the flowers of the Marrow, you will see they are of two sorts, the one with the unformed Marrow below the flower and visible from the outside, the other without the young Marrow, but with five yellow bodies filled with dust—the pollen—inside. The former are called pistillate flowers, the latter staminate. The dust from the latter has to be carried to the former and placed upon the rough yellow surface you find inside the flower in the middle, which portion is called the stigma. The process of placing this pollen on the stigma is frequently called fertilisation, but is more accurately designated pollination.

NAMES OF PLANTS.—*Woodstock*.—The plant is a Geum, and we think the variety Mrs. Bradshaw. It is impossible, however, to name plants with certainty from a single, crushed flower sent in an envelope. *Curious*.—1, *Jacobinia magnifica*; 2, *Ribes aureum*; 3, *Viburnum tomentosum plicatum*; 4, *Rhus Cotinus*; 5, *Centranthus ruber*.—*A. L. Ford*.—*Asperula stylosa*.—*John Clark*.—*Oenaria stellulata*.—*Mrs. Lane*.—1, *Calycanthus glaucus*; 2, *Staphylea pinnata*; 3, *Salix pentandra*; 4, *Saxifraga* species, specimen too small for identification.—*H. Ostlere*.—*Saxifraga Walacii*, so far as can be seen without flowers. You cannot do better than treat the Ivy as you have done in the past. *Kilmarney*.—1, *Populus tremula*; 2, *Cupressus pisitiera*; 3, *Pinus sylvestris*.—*Mrs. Hancock*.—*Spiraea discolor*.—*G. Hancock*.—1, *Mme. Jules Gravereaux*; 2, *Mme. Alfred Carrière*.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

THE fortnightly meeting held on June 22 was characterised by much fullness, hardy flowers being everywhere and in great variety. Roses were superbly shown, and there were many good exhibits of Carnations. Sweet Peas from Reading were a great feature. Orchids were very sparsely represented.

FLORAL COMMITTEE.

Present: H. B. May, Esq. (chairman), and Messrs. E. A. Bowles, R. C. Notcutt, F. W. Harvey, J. Hudson, W. J. Bean, G. Reuthe, C. Dixon, R. Hooper Pearson, R. W. Wallace, J. Dickson, H. J. Jones, C. E. Shea, J. T. Bennett-Poë, W. P. Thomson, E. H. Jenkins, G. Paul, J. Jennings, J. W. Moorman, J. F. McLeod, J. Green and C. R. Fielder.

Messrs. R. H. Bath, Limited, Wisbech, staged a very handsome lot of Pæonies, with occasional groupings of Delphiniums and a fine central feature of the same. Among these latter were *Pannonii* (Oxford blue), Mrs. Creighton (violet and purple), Mrs. K. F. Caron (single, of gentian blue colour), Mme. Zaiser (mauve) and Malana (deep blue and white centre). Some good Pæonies were Mandarin (rose with gold petaloids, a very beautiful combination), Her Grace (flesh pink double), 609 (a Japanese of crimson lake with gold and scarlet petaloids, one of the most striking in the collection), M. C. Lévêque (flesh pink double, very beautiful), Marie Lemoine (white) and Mme. de Vetry (very fine cream). The Spanish Iris Goldmine was also very good.

Messrs. Barr and Sons, Covent Garden, W.C., displayed a group of English Irises in variety, together with Iris ochroleuca, I. o. Innocence, I. Monspur Premier, Delphinium Moerheimii, Heucheras, Day Lilies and the welcome *Salvia virgata nemorosa*. Spanish Irises and early Gladioli were alike good.

Messrs. Stuart Low and Co., Enfield, showed some admirable vases of Roses, such as Old Gold (a most lovely orange tone), Duchess of Wellington, Marquise de Sinety (very rich in colour), Countess of Shaftesbury (pink), Queen Mary (pink and gold), Mme. Abel Chatenay, and Mrs. Andrew Carnegie (white). Messrs. Low also exhibited Malmesbury Carnations in variety, many exceedingly fine.

Messrs. Waterer, Sons and Crisp, Bagshot and Twyford, occupied tabling covering the whole of the western end

of the hall with an exhibit of herbaceous plants, Water Lilies, alpine plants and Roses, showing each in much excellence and variety. *Anchusa italica* Dropmore variety, *Gaillardias* and *Delphiniums* were all in striking groups. Pinks were delightful in their fragrance. *Cotyledon simplicifolia* was interesting and rare, and *Campanulas raddeana* and *Miss Willmott* were both beautiful. *Convolvulus althæoides* was very charming. Of Roses, Mme. Edouard Herriot, Mrs. Andrew Carnegie, Irish Fireflame and Mrs. George Norwood (fine fragrant pink) were among the best in a very fine lot.

Messrs. H. B. May and Sons, Edmonton, filled a table with miscellaneous greenhouse flowering and foliage plants, the former including Lantanas, Hydrangeas, Fuchsias, Salvias and other ornamental plants. The Fuchsias were in well-grown specimens and considerable variety. Ferns were employed as a groundwork, and constituted a good foil.

Mr. B. Ladhams, Shirley, Southampton, had an exhibit almost wholly of Pinks, than which no hardy border flower is more popular or appreciated. Some few good ones were Miss Vince (white), *Dianthus casius* Morning Star, The King, Inchmerry (pale pink), Elsie (pink, crimson centre), Market Favourite, Favourite (flesh pink, crimson centre) and Lady Hopkins. *Erigeron* B. Ladhams (pink) was most charming.

Mr. L. R. Russell, Richmond, displayed a table of flowering plants, in which Clematises largely predominated. Of these, Belle of Woking (double mauve), Sieboldii (deep blue), Ville de Lyon (red), lanuginosa candida Lady Northcliffe (fine blue), *Jackmanii* rubra and Marie Boisselot (white) were the best. *Erythrina Crista-galli* was also in good flower. *Clematis tangutica* (yellow) was most distinct.

Messrs. W. and J. Brown, Peterborough, staged Roses in excellent form. Such as Lyon, Irish Elegance, Irish Fireflame, Mrs. Rosalie Wrinch (rose, single, very charming), Sarah Bernhardt, Mme. Edouard Herriot, Marquise de Sinety, Margaret Molyneux and Juliet were very fine. *Lilium colchicum* and *Ostrowskia magnifica* were both well shown.

Messrs. Thomson and Charman, Bushey, had nice groups of *Dianthus neglectus*, Pink Excelsior, Geum Mrs. Bradshaw (scarlet) and *Delphinium* Bell donna semiplena, the latter most charming. *Pæonia lutea splendens* and *Linum arboreum* were also noted.

Mr. A. F. Dutton, The Nurseries, Iver, showed the perpetual border *Carnation* Iver Yellow, a shapely and beautiful flower of good yellow tone. The variety possesses a fine petal texture.

Messrs. W. Paul and Son, Waltham Cross, displayed three very fine vases of their new Rose Queen of Fragrance, a lovely pink-flowered garden Rose of unique fragrance and charm. *Titania*, of orange and scarlet tone, is another novelty of great beauty.

Messrs. J. Cheal and Sons, Crawley, arranged a small group of flowering shrubs, *Olearias*, *Buddleia globosa*, *Carpenteria californica*, *Abutilon vitifolium*, *Solanum crispum*, *Clematis integrifolia carulea*, *Chionanthus virginica* (Fringe Tree) and *Magnolia glauca* being among the best.

Messrs. Piper and Sons, Barnes, contributed alpine and succulents, together with a variety of seasonable herbaceous plants. *Origanum Dictamnus* and *Gentiana straminea* (white) were among distinct things.

Messrs. Carter Page and Co., London Wall, had an exhibit of Dahlias, several sections—Collarette, Cactus, Paony-flowered and decorative—being well represented.

Mr. Clarence Elliott, Stevenage, showed alpine in pots, the chief being *Campanula* Miss Willmott, *C. pulia lilacina*, *C. excisa*, *C. pulloides*, with *Saxifragas*, alpine Pinks and others.

Mr. G. Reuthe, Kes' on, Kent, showed a great variety of things, Pæonies, Ixias, many choice alpine, *Eremuri* in plenty, *Bahia lanata*, *Coronilla iberica*, alpine Pinks, *Scutellaria Pittonii* (nice blue), and much besides.

Messrs. Wallace and Co., Colchester, displayed a fine variety of *Eremuri* in rich masses, Warei (brunzy orange), with Bungei, Salmon Queen, and others being very fine. *Calochortus venustus* and *C. Eldorado* in variety were delightfully shown. *Erigeron hybridus* Asa Gray, soft buff with orange centre, was very striking. Pæonies, Irises, *Gaillardias* and *Delphiniums* were also very beautiful.

Mr. G. W. Miller, Clarkson Nurseries, Wisbech, had a showy group of Delphiniums, *Gaillardias*, *Pyrrethrus*, *Ornithogalum lacteum* (*O. thyrsoides*), with Pæonies and *Verbasums*.

Messrs. Blackmore and Langdon, Bath, had a group of Delphiniums, some of the noble spires fully 6 feet high, Mrs. A. J. Watson, D. Glory, D. Harry Smeetham and D. Le Danube being among the more imposing.

Messrs. George Paul and Son, Old Nurseries, Cheshunt, showed very fine Roses, Lemon Pillar, a lovely creamy white, being very fine. Rayon d'Or, Butterfly (pink), Mrs. A. Kingsmill (pale pink), Irish Glory and Irish Elegance were also included. The Hybrid Briar Naiad, of softest pink with brownish anthers, was very distinct.

Mr. James Box, Hayward's Heath, had a rich display of Pæonies, Delphiniums and *Pyrrethrus*, all in good variety. With these were associated English Irises, Pinks, *Incarvilleas*, Lupines and *Heucheras*. *Dictamnus caucasicus* was very finely shown, as was also *Inula glandulosa*.

Messrs. Carter and Co., Raynes Park, S.W., had a broad table of English Irises, showing these admirable summer flowers in great variety. *Othello* (deep violet), Duc de Abruzzi (mauve), Franz Hals (pale blue), Mont Blanc, Grand Lilas and L'Adorable (white and rose) were among the more important. All were set up in a particularly tasteful group.

Messrs. G. and A. Clark, Dover, showed *Erigerons*, *Campanulas*, *Pyrrethrus*, Pæonies and *Alstromerias*.

Messrs. Godfrey and Son, Exmouth, had a remarkable display of Canterbury Bells in pink and blue shades, both having very handsome flowers. Delphiniums and Potentillas were also freely shown.

Messrs. Kelway and Son, Langport, had a full table of Delphiniums, showing many leading sorts. Geraldine Kelway (pale blue), Lady Faire (pale mauve), Mrs. James Kelway (mauve), Lovely (mauve and blue, very large) and Star of Langport (pale blue and mauve) were all very fine.

The Misses Hopkins, Shepperton-on-Thames, showed a variety of alpine plants, with Pinks and Primulas.

Mrs. Lloyd Edwards, Bryn Oerog, near Llangollen, contributed some new Heucheras, Beauty, Lady Harlech, King George and Queen Mary all being of brilliant colour.

Messrs. B. R. Cant and Sons, Colechester, had a lovely table of Roses, making a great centre of the new Hybrid Tea Cupid, a pillar Rose of great size, and remarkable for freedom and the great charm of its flesh pink single flowers. Autumn Tints, Irish Fireflame, Betty, Chateau de Clos Vougeot (crimson), Sallie and Mme. Edouard Herriot were all very fine.

Messrs. Whitelegg and Page, Chislehurst, Kent, had a showy group of Delphiniums, with Heucheras, Erigeron hybridus roseum, Geum Mrs. Bradshaw and a pretty variety of alpines.

Messrs. Young and Co., Cheltenham, staged Carnations excellently, such as Cecilia, Mary Allwood, Circe (a handsome heliotrope fancy), Mikado and Duchess of Devonshire being among the more important.

Mr. M. Prichard, Christchurch, showed alpines very finely in pots, arranging them in groups of one variety. Campanula garganica in several shades, Erythraea diffusa (rose), Genista humifusa, G. dalmatica (golden), Coronilla iberica, Campanula pulla, C. barbata, C. b. alba and Asteriscus maritimum were all delightfully grown. Campanula garganica erinus was one of the most beautiful.

Mr. E. Hicks, Twyford, showed Roses. Princess Mary, Ada Paulin (pink) and Joanna Bridge were all very fine.

Mr. G. Ferguson, Weybridge, showed some admirable Delphiniums, Louvain (pale mauve), Queen of the Belgians (rich deep blue), Treviso (deep purple) and Bukovina (rich gentian blue) being very handsome.

Messrs. R. Tucker and Sons, Oxford, had Silene Elzabetha, Dianthus alpinus x neglectus, Primula sikkimensis, Androsace pubescens, A. helvetica, Saxifraga cochlearis, S. c. minor and Convolvulus Incanus in a choice lot of alpines on rockwork. Aquilegia pyrenaica was also good.

Messrs. G. Bunyard and Co., Maidstone, showed admirably such plants as Iris ochroleuca, I. o. intermedia, Delphinium Harry Smetham (intense blue) and a great variety of Paeonies in many good sorts. Flowering shrubs in variety were also contributed by this firm.

Messrs. Bide and Sons, Farnham, had a lovely display of Sweet Peas, Violet Crabb Improved (a fine blue), Bide's Cream, Ruth Bide (scarlet) and Wenvoe Castle being excellent.

Messrs. Allwood Brothers, Hayward's Heath, had a lovely gathering of Carnations, without doubt one of the finest displays seen this year, Bishton Wonder, Cinderella, Benora, Wivelsfield Wonder (all fancies), Princess Dagmar, Salmon Enchantress, Mary Allwood (very fine), Wivelsfield White, Yellow Stone and Champion (scarlet) being a selection of the best.

Messrs. Peed and Sons, West Norwood, showed a very fine strain of Gloxinias, many delightful selfs and fancies being admirably displayed.

Messrs. T. S. Ware, Feltham, showed finely Delphiniums, Paeonies, Gaillardias, Erigeron hybridus B. Ladhams, with Scabious, Alstroemeria and other flowers.

Lord North, Wroton Abbey, Banbury (gardener, Mr. E. R. James), contributed a grand lot of Sweet Peas, for which a gold medal was awarded. Some of the finer vases were Walter P. Wright, King Manoel, Norvic (white), Anglian White Improved, Clara Curtis, R. F. Felton (mauve), and Robert Sydenham. The flowers were of the finest quality throughout, some hundred varieties being staged in splendid condition.

ORCHID COMMITTEE.

Present: J. Gurney Fowler, Esq. (chairman), Sir H. J. Veitch, Sir Jeremiah Colman, and Messrs. R. A. Rolfe, Pantia Ralli, T. Armstrong, Walter Cobb, J. Charlesworth, W. H. Hatcher, A. Dye, S. W. Flory, W. Bolton, R. B. White, Gurney Wilson, C. J. Lucas and J. O'Brien.

Messrs. Stuart Low and Co., 'Enfield,' showed Cattleya Mendelelii, C. Mossie, Saccolabium Blumei, Phalaenopsis rimstadiana, of Vanda-like growth with brilliant scarlet flowers, Oncidium and others.

Mr. W. Thompson, Stone, Staffs, contributed some very fine hybrid Odontoglossums in variety. The group included some very beautiful spotted varieties.

Mr. R. G. Thwaites, Streatham Hill, had a small group, in which Cattleya Mossie Wagneri was perhaps the most important item.

THE GARDENERS' ROYAL BENEVOLENT INSTITUTION

As we announced some weeks ago, the committee of the above thoroughly deserving Institution decided not to hold the Festival Dinner this year. In place of that function it was decided to make a special appeal to those interested in horticulture, and we give the first list of subscriptions and donations which have been promised

or given. Further contributions, which are urgently required, should be sent to the secretary, Mr. G. J. Ingram, 92, Victoria Street, Westminster, London, S.W. We specially appeal to our Colonial and foreign readers to give some substantial support.

	£	s.	d.
Messrs. N. M. Rothschild and Sons	105	0	0
N. N. Sherwood, Esq., J.P., V.M.H. (trustee), William Sherwood, Esq., and Edward Sherwood, Esq.	100	0	0
Sir Harry and Lady Veitch	52	10	0
Sir Frank Crisp, Bart., J.P., LL.B.	58	3	0
Messrs. Sutton and Sons, Reading	50	0	0
Messrs. James Carter and Co., Raynes Park	52	10	0
Mr. O. O. Wrigley	50	0	0
Mr. Leopold Salomons, J.P.	31	10	0
Mr. W. E. Green	21	0	0
Mr. Arthur W. Sutton, V.M.H. (special)	20	0	0
Mr. William Robinson, F.L.S.	10	10	0
Market Gardeners, Nurserymen and Farmers' Association	10	10	0
Mr. Percival Etheridge	10	10	0
Messrs. George Bunyard and Co., Limited	10	10	0
Right Hon. the Earl of Ducie, P.C.	10	0	0
Mr. George Monro, V.M.H. (special)	10	0	0
Anonymous (special)	10	0	0
Mr. R. H. Fremlin	10	0	0
Sir George Pragnell, D.L.	5	5	0
Messrs. R. and G. Cuthbert	5	5	0
Mr. R. B. Leech	5	5	0
Mr. A. Dawkins	5	5	0
Mr. Whitpain Nutting	5	5	0
Mr. Otto Beit	5	5	0
Mr. Donald McDonald, F.L.S., M.R.H.S.	5	5	0
Messrs. Dickson and Robinson	5	5	0
Field-Marshal Lord Grenfell, G.C.B.	5	0	0
Sir Walter Smythe, Bart.	5	0	0
The Right Hon. Lord Barrymore	5	0	0
The Lady Northcote	5	0	0
Mr. Albert Brassey, J.P., M.F.H.	5	0	0
Mr. Pandell Ralli	5	0	0
Major Churcher	5	0	0
Mr. John Collingridge	5	0	0
Mr. J. T. Hemingway	5	0	0
Journal of Horticulture (per Mr. Horace J. Wright)	4	15	6
Messrs. Dickson, Brown and Tait	3	3	0
Mr. Reginald Cory	3	3	0
Mr. E. Brocklehurst	3	3	0
Yokohama Nursery Company	3	3	0
Messrs. Pulham and Sons	3	3	0
Mr. John Jaques	2	2	0
Mr. J. H. Goodacre, V.M.H.	2	2	0
Mr. W. Thompson	2	2	0
Mr. William Wiles	2	2	0
Mr. George J. Ingram	2	2	0
Mr. W. Ieeton	2	2	0
Mrs. Wheelley Lea	2	2	0
Mr. Edward Goodyear	2	2	0
Mr. H. J. Wimsett	2	2	0
Mr. Robert Gordon	2	2	0
Sir F. W. Moore, M.A., V.M.H.	1	1	0
Sir Daniel Morris, K.C.M.G.	1	1	0
Messrs. Toogood and Sons	1	1	0
Messrs. Stuart Low and Co.	1	1	0
Mr. E. Beckett, V.M.H.	1	1	0
Mr. J. McKerchar	1	1	0
Mr. Charles Deane	1	1	0
Mr. C.R. Fielder, V.M.H.	1	1	0
Mr. J. Willard	1	1	0
Mr. W. Newton	1	1	0
Covent Garden List (per Mr. George Monro, V.M.H.). £200, including the following amounts:			
Mr. James Sweet, V.M.H.	26	5	0
Mr. Joseph Rochford	26	5	0
Mr. George Monro, jun.	15	15	0
Mr. George Monro, V.M.H.	10	10	0
Messrs. George Monro, Limited	10	10	0
Mr. John Rochford	10	10	0
Mr. Alfred Watkins	10	10	0
Mr. E. Rochford	10	10	0
Mr. Jesse Smith	5	5	0
Mr. A. Stevens	5	5	0
Mr. E. Stevens	5	5	0
Mr. H. O. Larsen	5	5	0
Mrs. Alfred Watkins	5	5	0
Mr. W. Duncan Tucker	5	5	0
Mr. J. P. Rochford	5	0	0
Mr. W. Looker	3	3	0
Mr. C. Engelmann	3	3	0
Mr. J. M. Bridgeford	3	3	0
Mr. J. H. Cobley	2	2	0
Mr. R. S. Cobley	2	2	0
Mr. Alex. J. Monro	2	2	0
Mrs. Alex. J. Monro	2	2	0
Alderman R. Piper	2	2	0
Mr. W. E. Wallace	2	2	0
Messrs. D. and J. Walker	2	2	0
Messrs. Walsking and Henriksen	2	2	0
Messrs. C. Smith and Son	1	1	0
Messrs. P. F. Luck and Co., Limited	1	1	0
Messrs. J. and E. Page	1	1	0
Messrs. Thomas Brothers	1	1	0
Mr. A. J. Collas	1	1	0
Mr. E. Collas	1	1	0
Mr. R. Levy	1	1	0
Mr. W. Leyson	1	1	0

Mr. J. Lloyd	1	1	0
Mr. J. Miller	1	1	0
Mr. A. Miller	1	1	0
Mr. E. J. Piper	1	1	0
Mr. W. B. Randall	1	1	0
Mr. W. Sams	1	1	0
Mr. C. L. Schmassmann	1	1	0
Mr. C. H. Shoults	1	1	0
Mr. W. H. Simpson	1	1	0
And other sums of 10s. 6d. and 5s.			

Elstree and Boreham Wood Horticultural Society.—The annual show in connection with this society is to be held in the grounds of Aldenham Park, Elstree, on Wednesday, July 1. An excellent schedule has been prepared, copies of which can be obtained post free from Mr. W. J. Pritchard, High Street, Elstree.

United Horticultural Benefit and Provident Society.—The monthly meeting of this society was held at the Royal Horticultural Society's Hall on Monday, June 14, over which Mr. C. H. Curtis presided. Three members were allowed to withdraw double the amount of interest from their deposit, viz., £4 os. 8d., £4 8s. 10d. and £4 12s. 6d., and one member withdrew from his deposit the sum of £10. The sick pay for the month on the ordinary side amounted to £38 9s. 8d., on the State Section to £28 18s. 6d., and maternity claims to £19 10s. A discussion took place on the advisability of associating for the purpose of valuation with the State Section, and it was agreed that a special committee meeting should be held to discuss the subject.

Seeds for Soldiers.—At the request of the Commandant of a large Base Depot for troops at the Front, Messrs. Webb and Sons, Limited, of Stourbridge have sent a quantity of flower seeds for the soldiers to cultivate during the time they are in camp. After the strain and stress of trench warfare the growing of flowers will provide enjoyable and healthy recreation for our devoted men, and as the Commandant remarks, "It will remind them of their homes in England." Messrs. Webb have also sent collections of flower seeds to various military hospitals at home. These have been gratefully received by the respective Commanding Officers, one of whom says, "The results will, I am sure, be much appreciated by the sick and wounded soldiers."

Fruit Crops in Calvados, Normandy.—The Board of Agriculture and Fisheries have received from His Majesty's Vice-Consul at Caen a report on the prospects of the fruit crops by Le Directeur des Services Agricoles du Calvados, as follows: "Cider Apples and Pears promise plentiful crops as in the last three years, and as the markets are more limited than before the war, low prices must be expected as in 1914, when they were about 4s. per cwt. In the Honfleur district, where table fruits are especially grown, the prospects for wall Pears are bad, not exceeding a quarter of an average crop; but standard Pears promise a plentiful crop. There will be a moderate yield of Currants, and a poor crop of Plums."

TRADE NOTE.

"EUREKA" WEED KILLER.

AT this season of the year, when so much calls for attention and time seems all too short for doing all that should be done, the gardener is glad to have any "time-saver" brought to his notice. In this matter the famous "Eureka" preparations are a great boon. Although Messrs. Tomlinson and Hayward, Limited, of Lincoln manufacture several most serviceable gardeners' sundries, we would particularly refer to the "Eureka" Weed Killer, with which paths may be kept free from all vegetable life for a season after only one or two applications. A pamphlet giving full information may be had free from the manufacturers.

THE GARDEN.

No. 2276.—VOL. LXXIX.

JULY 3, 1915.

NOTES OF THE WEEK.

New and Rare Plants at Vincent Square.—

We are informed that at their last meeting the Council of the Royal Horticultural Society ordered that a special table space was in future to be set aside at all the fortnightly meetings at Vincent Square for new and rare plants. These plants are to be entered with the clerk of the floral committee, and the floral committee is to decide whether each plant comes under the above denomination and is to be placed on this special table or not. This move on the part of the Council will, we feel sure, be much appreciated by visitors, and we hope the rule will be strictly enforced.

Fruit Prospects at St. Malo.—

The Board of Agriculture and Fisheries have received a report from His Majesty's Vice-Consul at St. Malo to the effect that Apples, whether for cider, cooking or table purposes, promise an abundant yield in his district. Plums afford a better prospect than usual; Gooseberries and Currants are about an average; while Cherries are a good medium, if not a large crop.

A Grey-Leaved Speedwell.—

One of the most beautiful plants in the rock garden just now is *Veronica incana*, a native of South-Eastern Europe. This makes a dense though somewhat ragged tuft of grey foliage, which at present is surmounted by spikes of deep blue flowers. These rise to a height of about a foot, and the deep blue colour harmonises splendidly with the glaucous tint of the foliage.

A Dwarf Evening Primrose.—

Those who find the ordinary Evening Primrose too large and cumbersome should make a note of *Oenothera fruticosa* Youngii, so that when autumn comes plants can be procured. It is of comparatively dwarf stature, its average height being 18 inches, and it is a true perennial, coming up year after year with but little attention. The flowers, which remain open all day, are bright yellow and beautifully veined, contrasting well with the cinnamon red tint of the buds. In addition to its value in the garden, this Evening Primrose is also excellent for cutting.

The Great Rose Show.—

The National Rose Society's metropolitan exhibition, which is being held in the Royal Botanic Gardens, Regent's Park, just as this issue is going to press, is a magnificent show. Although, perhaps, not quite so large as in previous years, the quality of the blooms is excellent, notwithstanding the fact that maiden

plants, from which the best exhibition flowers are obtained, are very backward this year. Garden Roses have never been better, the cooler weather suiting them better than excessive heat. In our next issue we shall publish a detailed report of the show, with full descriptions and illustrations of the new Roses that are recognised by the judges. We advise readers who require extra copies to order them in advance.

double flowers, but as the trees get older to produce only single ones.

Deep Red Heather.—What is probably the deepest red of all the hardy Heaths, *Erica cinerea atrosanguinea*, is just now making quite a vivid patch of colour in the quarters devoted to these plants. Of quite dwarf and tufted character, it is admirably adapted for an edging to the border, its dense heads of flowers almost obscuring the dark green foliage. The colour is a glowing rosy red, which is seen to the best advantage under strong sunshine. It varies somewhat in intensity on different plants, but this Heath is certainly one that ought to find a place in every garden where Heather is appreciated and where the soil is free from lime.

A Charming Single Rose.—

The Rose which is grown under the name of *Rosa Vorbegii* is a beautiful one. It is about seven or eight years since it was first sent out by Messrs. Späth, who described it as a hybrid of *R. lutea* × *R. spinosissima*. It forms a neat little bush from 2 feet to 3 feet in height, with wiry branches clothed with foliage closely resembling that of *R. lutea*. The deliciously fragrant flowers are opened very early in the season, early June finding it at its best, and as it flowers with the greatest freedom, the bush presents a very attractive appearance when in full bloom. In general appearance the flowers resemble those of *R. spinosissima*, but they are much larger than in that species, being fully 3 inches across. The petals are white, with a delicate flushing of yellow—no doubt derived from *R. lutea*—and the colour is enhanced by the conspicuous boss of golden yellow stamens in the centre.

Rose Arthur R. Goodwin as a Standard.

Ever since it was introduced in 1910 we have had a high opinion of this Rose grown in bush form, and we were pleased to find it a few days ago

doing well as a standard. Budded on the Briar stock it makes a neat head, its sturdy, though thorny shoots standing out well and showing off the orange buff flowers to the best advantage. In the half-opened stage these are of exquisite shape, and when full blown the blooms hang for a long time before dropping their petals. It is stated by some that Louise Catherine Breslau is likely to supersede Arthur R. Goodwin, but we must "wait and see."



ROSA VORBEGII, A CHARMING HYBRID GROWING IN THE GLASNEVIN BOTANIC GARDENS.

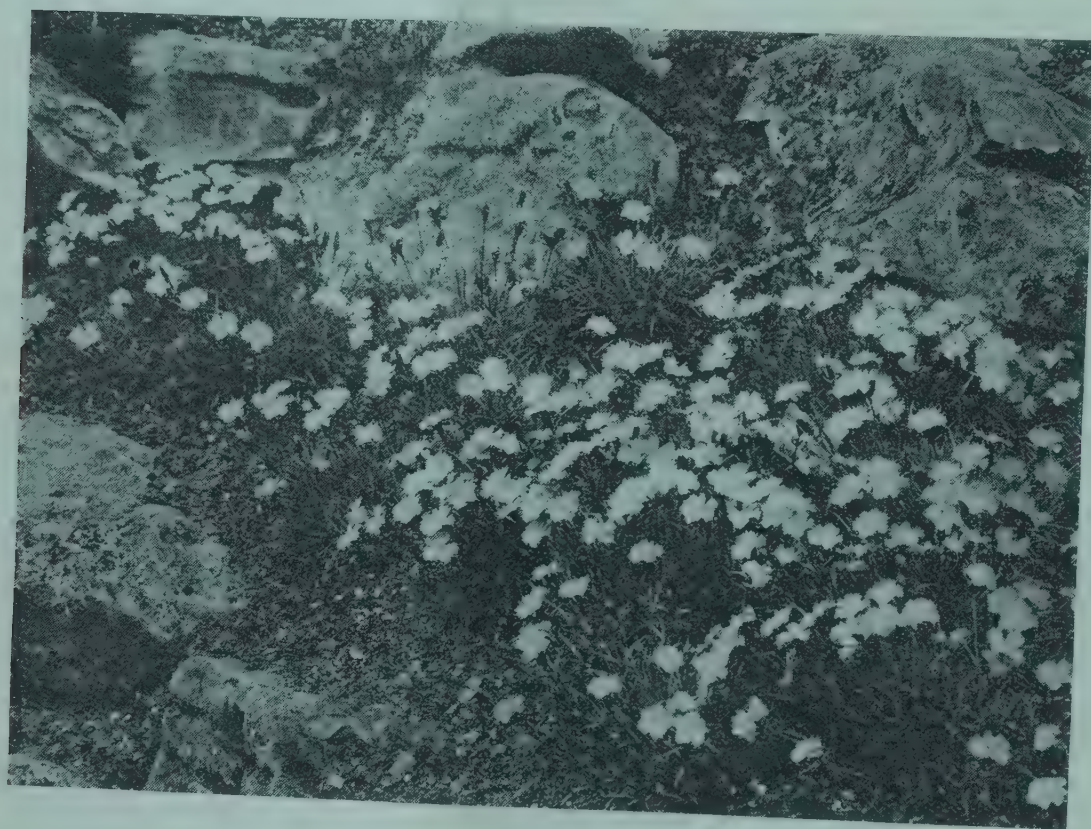
Double Apple Flowers.—At the last meeting of the scientific committee of the Royal Horticultural Society, Mr. H. M. Eddie of Kerrisdale, British Columbia, wrote concerning a young Apple tree having double flowers of remarkable size, being 3 inches in diameter and with twenty-eight to thirty petals each. It will be interesting to see whether the doubling is maintained as the plants become older, for it is no unusual thing for young Apple trees to produce

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

A Beautiful Dwarf Pink.—A few days ago we received from Mr. Spencer H. Bickham, F.L.S., Underdown, Ledbury, some flowers of the charming little dwarf *Dianthus* that bears his name. It is generally regarded as a hybrid, and is, we think, the best and most brilliant of all. The flowers are brilliant rose red in colour, and, as will be seen in the accompanying illustration, the plants make dense tufts of foliage and blossom. Mr. Bickham also sent flowers of another *Dianthus*, of much paler colour, which he stated is being sold by some people as Spencer H. Bickham. When the true plant can be obtained, it is worthy of a place in the choicest rock garden.

Rhubarb and Raspberry Cup: A Refreshing Drink for Hot Summer Days.—Ingredients:



THE DWARF HYBRID PINK SPENCER H. BICKHAM IN THE ROCK GARDEN.

1lb. Rhubarb, two tablespoonfuls of Raspberry vinegar, 4oz. of sugar; optional, a little grated nutmeg; and a few crushed leaves of Borage, Balm or Mint. If needed for colour, a few drops of cochineal. Method: Cut the Rhubarb with a silver knife into inch lengths. Boil in a quart of water for twenty minutes; then strain the liquor through muslin. Add 4oz. of sugar and stir till the sugar is dissolved. Add two tablespoonfuls of Raspberry vinegar and stir well for a few minutes. A little grated nutmeg may be added if liked. Serve very cold, with crushed leaves of Borage, Balm or Mint. The above will make about two quarts of "cup." Soda water or plain water can be added if desired.

—ANNE AMATEUR.

Berberis pinnata in Hertfordshire.—At the present moment, when so much interest is centred in this family, the remarks in your issues for April 24 and May 1, re the tall specimens stated to be *Mahonia Aquifolium*, are most interesting. No

doubt Sir Herbert Maxwell is correct in stating that *M. Aquifolium* does not grow to the height quoted by Mr. Comfort and "C. T." *Berberis pinnata* is, I believe, generally considered to be identical with *B. fascicularis*, though I am inclined to think it is a variety of it. I am enclosing a photograph of a specimen growing near here in the gardens of F. Cordrey, Esq., The Fortress, Letchmore Heath, which measures upwards of 12 feet in height and 30 feet in circumference. There are several of this variety practically the same height in the same garden. It is a charming plant and well worthy of extended cultivation.—E. BECKETT, V.M.H., Aldenham House Gardens, Elstree. [The photograph kindly sent by Mr. Beckett showed a remarkably fine specimen, but, unfortunately, it was not suitable for reproduction.—ED.]

Foxgloves and Their Cultivation.—I was much interested in the article and beautiful illustration in THE GARDEN, issue June 19, pages 304 and 305.

they are for the town garden and the wild garden, for they grow very freely and flower profusely. Of course, there are many splendid varieties, some reaching a height of 3 feet or more, and others 5 feet and developing into magnificent specimens; but despite these and the many other grand varieties so useful for placing near the back of borders, I have a great fondness for the old wild Foxglove. We never have to sow seed of this here, for we always get a certain number of plants coming up as weeds. These, with good treatment, give us fine spikes of bloom. They are, of course, simpler and much less magnificent than those fine florists' varieties, and this is why I like them. I use them for dotting about in my mixed borders, and sometimes strong plants are put close to the edge of the borders to show them off well. They are not allowed to seed themselves all over the place, or we should have colonies of them. The writer says "treat them as biennials," but I find I can let mine go on for three or four years before I renew them, as several spikes are formed on each old plant.—E. T. ELLIS, Weetwood, Ecclesall, Sheffield.

The New Division of the Leedsii Daffodils.

Under this heading, in your issue of June 19, page 300, your correspondent Mr. R. Morton suggests that certain varieties now classified as Giant Leedsii belong rather to the Incomparabilis, and quotes as examples Hon. Mrs. J. L. Francklin and Norah Pearson. Being the raiser of these two Daffodils, I cannot let Mr. Morton's article go unchallenged. First, the parentage of these places them under the Giant Leedsii heading, as they were raised from Minnie Hume and Mme. de Graaff. I would not give this as sufficient reason for their classification, for it must be confessed that the same cross has given flowers which nine experts out of ten would call Incomparabilis. But I do say that their breeding, coupled with their "obvious" Giant Leedsii appearance, should undoubtedly place them under this heading. Certainly the cups of both varieties are of a deeper yellow than those of most Leedsii, and the colour does not fade with age; but the texture of the blooms, with the habit and foliage of the plants, both proclaim their origin. If my memory is not at fault, I think Mr. Morton will find that there are other Leedsii of the older, small-flowered section which have yellow cups that do not fade to white. Is not Amazon an example? Of course, all this classification is more or less arbitrary, and is only undertaken for the convenience of exhibitors and exhibition committees, so that it might be argued that it does not matter much under which heading they are placed so long as they are placed somewhere and everyone who possesses the Royal Horticultural Society's Official List can find them and will know in which section to exhibit them at the Daffodil shows. I do not agree with this, neither, I am sure, do the classification committee, the members of which have worked hard to place an enormous number of Narcissi, both new and old, in their proper sections. Mistakes have been made, we all know, but I cannot agree that any mistake has been made with Hon. Mrs. Francklin and Norah Pearson. In classifying Daffodils the question of measurements and colour must be the principal factors in determining into which section a variety is to be placed; but unless the use of the rule and colour chart be tempered by a little common sense—and in difficult cases reference to parentage

I always had a great fondness for Foxgloves, not the least for the wild one, *Digitalis purpurea*. As a youth I annually looked forward to the hundreds, I may say thousands, of spikes of blossom rearing their heads above the Bracken Fern clothing the sides of Beeston Castle in Cheshire. It was an ideal place for Foxgloves and Ferns. "A. B. Essex" rightly praises the modern garden strains. I have seen many fine specimens during the past few years, but none to equal some I saw a few days ago in an old thatched cottage garden. The plants were growing informally in groups, the spikes were magnificent, the individual flowers equally so and the colours most pleasing.—GEORGE GARNER.

— I was very pleased to see the notes on "Foxgloves and Their Cultivation," by "A. B. Essex," in THE GARDEN for June 19, page 304, and I agree whole-heartedly with the writer when he says they are undeservedly neglected plants. My own experience shows me what ideal plants

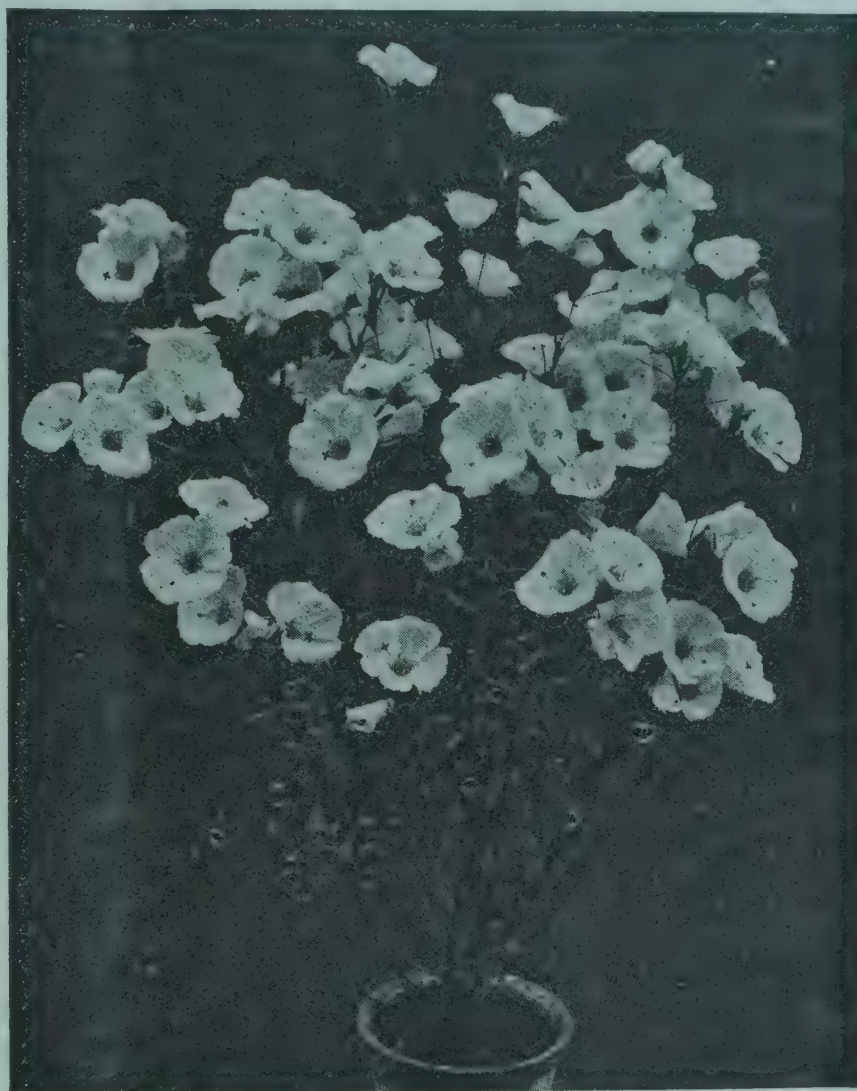
—many glaring mistakes are bound to occur. It will be noted that the word "obvious" used before is given in the Royal Horticultural Society's List (Division V., Triandrus Hybrids) as the *only* guide in "placing" flowers of this breeding; while "parentage" is the *only* guide for classifying Jonquilla hybrids. Therefore I feel safe in pleading for these points to be always kept in sight when the classification of a flower is under discussion.—J. DUNCAN PEARSON, *Lowdham, Notts.*

Ancient Home-Made Ointments, Perfumes and Cordials.—Such an article as that suggested by "M. H." on page 300 of *THE GARDEN* for June 19, 1915, would be most interesting. The difficulty is not to find ancient recipes, but to arrive at the necessary old-time furniture

of a still-room. Much about this might be gleaned from the careful perusal of the details of how to distil this or boil that which are scattered over the pages of the little books which deal with the subject. For example, in the volume I am about to mention under the head of "The Art of Confit-making, Teaching How to Cover All Kinds of Seeds, Fruits or Spices with Sugar," there is an inventory of the utensils required for these purposes. "First you must have a deepe bottomed bason of fine cleane brasse or latton . . . you must also have a broad panne to put ashes in . . . you must also have a fine brassen ladle . . . you must also have a brassen slice." I am the fortunate possessor of this rare work, in excellent preservation, which contains as Part I., "A Closet for Ladies and Gentlewomen, or the Art of Conserving and Candyng," and as Part II., "Delights for Ladies to adorne their Persons, Tables, Closets, and Distillatories." The second of the two is dated 1617, and is probably a posthumous work of Sir Hugh Platt; who was very famous as an agriculturist and horticulturalist in the later years of Queen Elizabeth's reign and in the early ones of King James. The first has no name appended, and it is very possible that it was not the work of the celebrated knight. Some of the recipes are quaint. Their ingredients sound strange to modern ears. No. 11 is "To

candy Marigolds, Roses, Borage and Rosemary-flowers." No. 51 is "To make conserve of Strawberries." The final stage is "then boyle them in wine and sugar till they be stiffe." On the personal side we find directions "how to take away any pimple from the face," how to make "sents for gloves," and all about "a delicate stove to sweat in." A little volume like this is hardly the sort of thing we would expect our V.M.H.'s to break out in to-day. Yet it probably was not accounted strange then, when there was such a close connection between the kitchen and herb gardens and the still-room. More than a century later, in 1744, we have "Adam's Luxury and Eve's Cookery," which is partly about how

to grow vegetables, and partly about how to cook them and certain fruits. About the same period or a little later a pamphlet of forty-two pages was published called "The Art of Making Wines of Fruits, Flowers and Herbs." Roses, Cowslips, English Figs, Blackberries, Strawberries, Elderberries and Mulberries are some of the flowers and fruit for which directions about how to make them into wine are given. The much-derided Gooseberry wine is said to have so many virtues that I am sure "M. H." would long to make some. It is "jolly good," too, independent of any medicinal or health-giving properties. I will never forget some a head-gardener once gave me. It was delicious, but certainly not a temperance drink. He would be a very hardened old toper who would



THE NEW GODETIA LAVENDER SHOWN BY MESSRS. J. CARTER AND CO. IN LONDON LAST WEEK. (See page 330.)

say of it, as one of that fraternity said of some poor whisky, "There ain't a headache in a big bottle." But I am writing an article instead of a reply, so please, Mr. Editor, I must stop.—JOSEPH JACOB.

FORTHCOMING EVENTS.

July 6.—Royal Horticultural Society's Summer Show, Holland House, Kensington (three days). Gloucester Rose and Sweet Pea Show.

July 8.—Manchester and North of England Orchid Society's Meeting, Coal Exchange, Manchester. Finchley Horticultural Society's Show.

THE LILY DISEASE AND HOW TO COMBAT IT.

LIKE most other plants, the Lily is subject to more diseases than one, but there is one that is particularly prevalent almost through the length and breadth of the land. It is characterised, in the first place and in mild attacks, by brown, dead spots on the foliage; later and in bad attacks by similar areas on the stems. If these dead areas occur, as they often do, low down on the stem, the water supply is interrupted, and all the parts above the spot collapse long before the normal time arrives when the foliage might be expected to die of old age, and sometimes long before the flowers open.

The common beautiful white Lily, *Lilium candidum*, is perhaps the most liable to attack, but we have seen instances of the disease in many species. *L. Hansonii*, *L. giganteum*, *L. Martagon* (usually slightly), *L. colchicum* and even the hardy *L. croceum* are all more or less liable to it.

The late Professor Marshall Ward, by one of the most painstaking researches ever carried out, definitely proved the origin of the disease to be the common fungus *Botrytis cinerea*. This fungus is exceedingly prevalent on all sorts of dead vegetation and forms the well-known grey mould, which has only to be sought to be found on dead, moist leaves in any garden. It is in many ways a remarkable fungus. It usually, and perhaps normally, grows on dead vegetable matter; but Mr. George Masee found he could train it by very simple means, such as might occur in certain circumstances in Nature, to invade living tissues, and this it not infrequently does, so that it is not only a devourer of dead matter (a saprophyte), but a parasite as well at times.

Further, once in, it produces a poison which invades cells in advance of the fungus, kills them, and lays them open in turn to the ravages of the fungus, so that the brown, dead spot caused by its first invasion quickly spreads if the conditions are favourable.

We thus have these facts. The fungus *Botrytis cinerea* is common and abundant wherever dead vegetable matter exists, and it is capable of invading living Lily leaves and stems and causing their death if conditions are favourable to it.

The bulbs are rarely attacked, though they are sometimes, and, so far as they are concerned, the main damage is done by the premature destruction of the leaves. Foliage is the food-maker, and to destroy it is to stop the manufacture of food, and so reduce the reserves available for the growth of the plant in the next season. If a plant is attacked season after season, the bulbs gradually get weaker and weaker, and at last succumb to starvation. A bulb once attacked

is not necessarily diseased, but may produce perfectly healthy plants in another season.

The Remedies for the Disease, or rather the preventive measures, to be adopted are, therefore, so far as is possible, to reduce the amount of the fungus in the immediate neighbourhood of the plants, to prevent the germination of the fungus upon them, and to place the plants under such conditions as will be least likely to lay them open to attack.

Something may be done in each of these directions, and I will deal with them in order. The soil in which the bulbs are planted should not be rich in organic matter, and especially the top few inches. All dead foliage should be cleared off and not permitted to decay. Where plants have been attacked, the top 2 inches of soil should be removed and replaced with fresh containing little organic matter in it, but mixed with lime rubble to promote decay, and in early spring dusted over with flowers of sulphur to check the growth of saprophytic fungi like the *Botrytis*. It would be of considerable interest if those who have experience of growing the white Lily in chalky soil, or soil mixed with limestone chips, would relate it, giving the exposure of the plants and any other notes bearing upon the matter.

To prevent the germination of spores of *Botrytis*, spraying the plants frequently with liver of sulphur (roz. to 3 gallons), or less frequently with Bordeaux mixture, might be of service; but of greatest service is attention to the third point. Briefly, any condition which checks the plants suddenly is apt to lay them open to the attack of this ubiquitous pest. Of these conditions the chief are: Late frosts while the flowering stems are forming; cold east winds at the same time; and stagnant water at the roots. Avoidance of these conditions will, more than any other measures, protect white Lilies from the attack of *Botrytis*. SCIENTIST.

A TALL-GROWING BROOM.

FLOWERING during June and July, when most of the *Genistas* are over, the tall-growing *G. cinerea* is valuable. It forms an open, comparatively upright bush of shapely habit, with arching twigs, and eventually reaches 9 feet to 10 feet high. The slender branches are freely clothed with rich yellow blossoms, borne in clusters. For large beds on the lawn or groups in the shrubbery border *G. cinerea* is a most desirable Broom, while dotted in groups or singly about in the open woodland the effect is most pleasing.

INFORMAL AND WILD GARDENING.

BY JAMES HUDSON, V.M.H.

(Continued from page 314.)

"The Grass.—Let the grass grow all over the field at its own sweet will, only cutting it with sheep-shears just round the newly planted plants. The grass blossom and the glorious crimson of the Sorrel heads will add greatly to



JAPANESE IRISES GROWING NATURALLY IN LADY DU CANE'S GARDEN AT MOUNTAINS, WITHAM, ESSEX.

the charm of the wild garden. In November and early December, when the autumn-blooming Crocuses are over, the whole of the grass should be cut down with a bagging hook and left where it falls, unless it is wanted as a mulch to newly planted Rhododendrons and such-like plants.

"Plants for the Grass Land.—These will vary according to the nature of the soil. For example, Rhododendrons, Pernettyas and such-like plants will not be planted in chalky or limy soils. But speaking generally, and following the

year round, there will be among more or less bulbous plants: Winter Aconites (these not more than a foot back from the paths), Snowdrops, Snowflakes, Crocuses, Daffodils, *Liliums croceum*, *candidum*, *pardalinum* in wet spots, and *tigrinum*, *Camassia esculenta*, *Fritillarias*, *Cypripedium*, *Calceolus* and *C. speciosus* in damp spots, *Colchicums*, *Crocus speciosus*, yellow Water Iris in wet spots, *Iris sibirica*, *Crinum capense*.

"Among flowering plants: *Trollius*, *Caltha palustris*, Lady's Smock, Lady's Mantle, Forget-me-not in wet spots, all British Orchids, all British Heaths (unless on chalk), wild Scabious, wild Centaurea, Blue Alkanet, Viper's Bugloss, *Helianthemums*, *Salvia pratensis* and its allies, *Verbascums* of all sorts and kinds, Foxgloves in half shade, Purple Loosestrife, Yellow Loosestrife, *Spiræas*, *Campanula Trachelium*, Ragwort, Golden Rod, *Michaelmas* Daisies, Ox-eye Daisies, large white Autumn Daisies, *Campanula rotundifolia*, *Inula ensifolia*, *Centaurea macrocarpa*, Marjoram, *Crambe cordifolia*, Mallow (pink and white), St. John's Wort of all sorts, Toadflaxes, Monk's hood, *Polygonums*, *Senecio* in variety, Solomon's Seal, Teasels, *Geraniums*, *Geums*, *Anemone Pulsatilla*, Rest-harrow, Betony, *Aquilegias*, *Epilobiums*, *Chrysanthemum uliginosum*, *Phyteuma orbiculare*, &c.

"Among flowering trees and shrubs: Laburnum, Almonds (pink and white), Lilac (only singles), Hawthorns (use the coloured ones very sparingly), *Cistus* of all sorts, *Cytisus* of sorts, Double Gorse (not single, it sows itself all over the place, and is not half so beautiful a plant, in or out of flower, as the double), single and semi-double and all *Wichuraiana* Roses (but none of the show Roses), Guelder Roses, *Forsythia suspensa*, Double Cherries, *Osmanthus*, Hollies, Tree Ivies, Bamboos, Magnolias, Spindlewood, Flowering Raspberries, *Spartium junceum*, *Cydonia*, Rhododendrons (but use the red ones very sparingly), Azaleas, *Pernettyas*, *Stuartia Pseudocamellia*, *Berberis* of all sorts, Lavender, Rosemary, *Potentilla* (shrubby), *Ribes sanguineum*, Wayfaring Tree, Veronicas, Bog Myrtle in wet places.

"In the Copse or Thin Woodland.—Encourage Ivy and moss to grow over the whole of the surface wherever either will do so.

"Plants for Woodland.—Snowdrops, *Anemone blanda*, *A. ranunculoides*, *A. apennina*, and all varieties of *A. nemorosa*, such as *robinsoniana*, *Alleni*, &c.; *Scilla nutans* and *S. n. alba*; all the hardy Cyclamen, particularly *neapolitanum*; *Trillium grandiflorum*, Primroses (yellow and white, not coloured), *Campanula latifolia* and

C. l. alba, *Narcissus cyclamineus* and *N. triandrus*, *Chionodoxa sardensis*, Dog's-tooth Violets, white Wood Violets, *Helleborus foetidus*, Wood Sorrel (white and pink), and Ferns in abundance (the wild British are by far the best, and the curious crested and other forms should be used most sparingly, not more than one in twenty-five), such as *Lastrea dilatata*, *L. Filix mas*, *Athyrium Filix foemina*, *Polystichum aculeatum*, *angulare* and *munitum* (which is Canadian), *Scolopendrium vulgare*, *Polypodium vulgare*, *Dryopteris* and *Phegopteris* (both the latter in rather damp spots), *Osmunda* in wet places. There is nothing looks so beautiful in woodland as Ferns. Both for them and for the flowers the wood must not be too dense or too dark. It must be essentially a thin wood. In light soils the Ferns will, in a hot, dry summer, want watering once in three weeks, giving a big plant a gallon at a time and a small plant half a gallon, but they are well worth it."

What I admired so much in Mr. Wilks' garden was the way in which all the garden blended in one harmonious whole. In the distance and under the shelter of the eastern screen of trees were the orchard trees—Apples, Pears and Plums. When in flower these could be nearly all seen from the house itself, and thus add to the beauty of the garden. Quite in the distance I noted a fine row of Scarlet Runners, which added greatly to the effect. Mr. Wilks, I may add, is a most enthusiastic gardener, practical to a degree. In gardening he finds the relaxation and delight so essential to a very busy man.

The garden at East Burnham Park, near Slough, the country residence of Sir Harry J. Veitch, F.L.S., V.M.H., affords another excellent example of fitting in a garden with the surroundings, taking every advantage of the well-grown Oaks and other trees. Around the house itself there is an approach to formality, it is true, but as one gradually leaves that behind and arrives at the wild garden everything is quite informal, and the utmost use is made of the woodland adjoining. In an open spot are collections of fine foliage plants with some small pools in the foreground, with appropriate water plants, and stepping-stones across and between the pools. On one side are the relics of an old pathway, made with small paving-stones, among which are to be seen various dwarf, close-growing plants, Stonecrops and the like. This is quite unlike any arrangement I have ever seen, in every way most picturesque and charming. In the woods are to be seen Bamboos and other plants which thrive in the shade, with the walks quite informal and of such material as can be easily kept clean; thus the

one essential of inexpensive maintenance is followed.

Informal Gardens and Old Mansions.—Quite in contrast to many gardens is that of Lady Du Cane at Mountains, Witham, Essex. One, as a rule, associates formal gardens with such houses as hers. This is, however, quite an exception to that rule. I never saw, nor have I heard of, a more informal garden than this, or one that is more charming and picturesque. I have had the pleasure of seeing it in various aspects, both in the spring with the Daffodils in their beauty, and later on with the Roses which thrive so well, growing quite in *abandon*, and still later when the herbaceous plants are at their best. In each instance it has been perfectly lovely, like Mr. Wilks' garden in one sense, that of being composed of nearly all hardy plants. No lines

MAY-FLOWERING TULIPS AND WALLFLOWERS.

A RETROSPECT.

IT is often pointed out that Wallflowers associate well with Darwin and Cottage Tulips, flowering as they generally do about the same time, but comparatively few take much trouble in bringing about colour combinations. May I be permitted at this time, when Wallflower seed may still be sown, to give my experience of the past season? I grow both Darwin and Cottage Tulips, and it occurred to me last October that it would be worth while if, in planting out, special regard were had to the various groups. The little extra trouble—if such it could be called—more than



LASTREA DILATATA IN THE REV. W. WILKS' WOODLAND GARDEN. THIS FERN IS 7 FEET 9 INCHES ACROSS.

are followed, everything being informal to a degree. In the ravine there is a well-arranged rock garden, with a little rivulet running through it. Here the Japanese Iris thrives remarkably well. This garden is an example of what may be accomplished within a limited area when the owner is a keen gardener and takes a real interest in the garden.

My desire throughout this paper has not been to advise curtailment in the garden in any sense, but rather an addition to its beauty and attractiveness by the introduction of a greater variety of plants which are adapted for informal gardening, and may be grown in a more natural manner. All needless labour in upkeep should be avoided, not to reduce the amount of labour expended, but so as to give more attention to the one great essential—cultivation, in such parts of the garden as need real cultivation.—From the Royal Horticultural Society's Journal.

justified the effort, and the result was a charming display. The Tulips were grouped in borders among herbaceous subjects—about nine bulbs in each group—and between the next lot of herbaceous plants Wallflowers were planted, out in threes, and this is the arrangement:

I give the Darwin Tulips first. Mrs. Potter Palmer, large purple violet blooms which last well, in conjunction with Primrose Monarch Wallflower; Pride of Haarlem, with Harbinger Wallflower, richest brown; Salmon King, salmon carmine, with Blood Red Wallflower; Clara Butt, rosy salmon pink, and Mr. Farncombe Sanders, glowing carmine rose, with Purple Queen Wallflower; Rev. H. Ewbank, silvery heliotrope, with Fire King Wallflower. Cottage Tulips.—Orange King with Blood Red Wallflower; Inglescombe Pink with Orange Bedder Wallflower. The old and popular Tulipa gesneriana major,

with its vivid scarlet blooms rising out of Primrose Monarch Wallflower, showed up to great advantage; as did Bouton d'Or among Blood Red Wallflower, the yellow of the former and deep tones of the latter producing vivid contrasts. Particularly effective were other Darwin Tulips like Sultan, with deep purplish shades, along with Primrose Monarch Wallflower. Queen of the Roses, a very beautiful rose Tulip, and Harbinger Wallflower were much admired.

I ought to mention, for the benefit of those who like Tulips for cutting, that one of the cheapest sorts, and at the same time a most beautiful variety, is to be found in the old Cottage gardeniana rosea, a comparatively dwarf grower. This I had planted in close proximity to a group of Tom Thumb Yellow Wallflowers, and it came as a surprise to not a few who saw both that such a splendid array of colour could be got together for a trifling sum.

I do not agree with the somewhat scathing remarks of "A. B. Essex" "that the Wallflower has been almost spoiled by so-called improvements. Those with blooms of dirty creamy yellow hue or a nasty magenta purple are mere caricatures of a dear old fragrant flower." It depends a good deal upon the associations as to the effect produced, and planted on the lines indicated with Tulips, even what, standing alone, appear washed-out colours have a beauty mingled with the bewitching colours of the Tulips. W. LINDERS LEA.

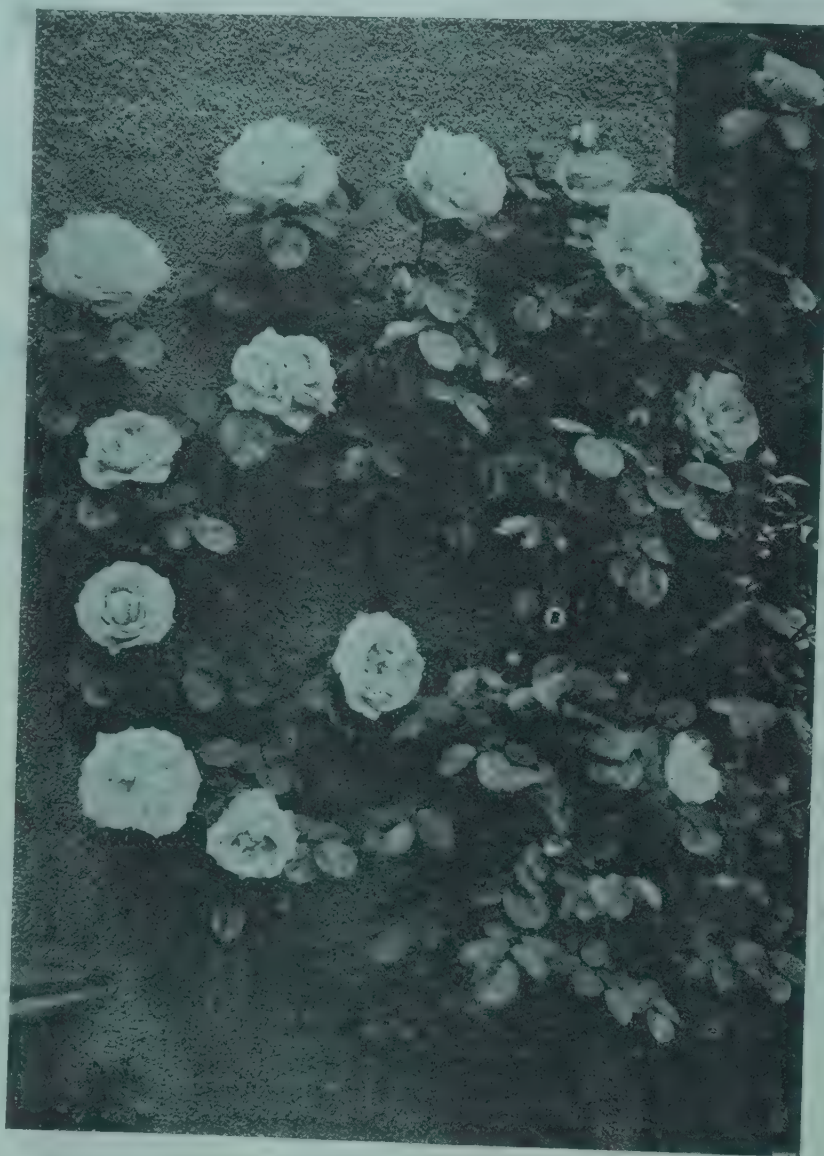
LARGE - FLOWERED RAMBLER ROSES.

A STURDY post, some 6 feet high, and clothed from base to summit with the rambling form of that superb pink Rose, Caroline Testout, reminds one that these large-flowered Roses of scandent habit should play a more important part in our gardens during the summer and autumn months. The plant mentioned produces blooms equally as large and full as those found on the original bush forms, but in such quantities that one need not hesitate to gather them lavishly for the house. Many of these large-flowered rambling Roses also bloom earlier than the majority of the cluster varieties, and, what is even of greater importance, frequently give a good display well into the autumn.

Until comparatively recently they formed a set quite by themselves, but at the recent Chelsea Show a magnificent scarlet Rambler, that attracted and held the attention of every Rose enthusiast who visited the exhibition, proved that hybridists have been crossing the large-flowered Roses with the clustered wichuraiana set.

Although the majority of those that I will name are only vigorous enough for pillars, some grow so rampantly as to induce one to give them a place on the pergola or a wall of the house, where their sturdy growths can travel over a con-

siderable space and produce flowers by the hundred. As an example of this vigour the illustration of Conrad F. Meyer will serve well. The photograph was taken in an Essex garden on June 2 of this year. At that date the plant, only a small portion of which is illustrated, was over nine feet high, yet it was planted as recently as February, 1913, when it was obtained from a nursery and cut nearly to the ground-level. It is a Hybrid Rugosa Rose, and the large, exquisite blooms are a beautiful shade of silvery pink, emitting the true Rose fragrance that everyone appreciates. What better plant could one have for surrounding, as this does, the doorway and dining-room window?



THE HYBRID RUGOSA ROSE CONRAD F. MEYER. THE LARGE, SILVERY PINK BLOOMS ARE VERY FRAGRANT.

Keeping it company on the other side of the doorway are Gloire de Dijon and Grüss an Teplitz, a twain that every rosarian loves. Both have large flowers, both are fragrant, the former having the true Tea Rose scent and the latter that so characteristic of crimson Roses, and both bloom over a very long period. Indeed, Gloire de Dijon is about the first to open, and once it starts, a well-grown plant is never without flowers until the frosts come in autumn.

Some Hints on Management.—This is not the time to go into details concerning the treatment of soil and planting. These are better dealt with in autumn, but in passing one may, perhaps, just throw out a reminder that the soil must be

good, even more so than for bush Roses, as rapid growth during the first two or three years is more desirable than quantity of bloom. A complaint that is usually made by those who grow large-flowered ramblers is that after a year or two the plants become bare for several feet from the soil. There is no doubt this is a serious drawback, yet it is one that is easily overcome. It may be done in two ways. One is to unfasten several of the rods at pruning-time, bend them over arch-wise and tie the end of each to a peg thrust in the earth. They remain thus until the lower buds have burst and have made shoots several inches long, when each rod may be fastened

back in its original position. A more convenient way, where there are sufficient rods to allow it, is to leave a number nearly full length and to cut others at varying heights. Thus one could be cut to within 3 feet of the ground, another 4 feet 6 inches, and another 6 feet. Treated in either of these ways, there will not be any more cause for complaint regarding bare bases of pillars, arches or walls. Unlike the wichuraiana Roses, which are best pruned when the flowering is finished, these large-flowered ramblers are to be cut in spring, just before the bush Roses are pruned.

The Best Varieties.—In addition to those already mentioned, there are a good number of scandent Roses with large blooms, and I will name those I consider the best. The word "climbing" is used as a prefix to such varieties as Liberty, as it will be found in practically all catalogues, though the purist will know that it is wrong. "Rambler" is a much better term, and the word "climber" ought to be reserved for such plants as Clematis and Virginian Creeper.

Nova Zembla.—This is a white-flowered counterpart of Conrad F. Meyer, already described and illustrated herewith. It grows vigorously, and its large blooms, which open pale blush and change to white, are sweetly scented. Good for pergola or wall.

Ards Rover.—A beautiful crimson-flowered and sweetly scented Rose with large, handsome foliage. Rather subject to mildew in autumn. Pillar or wall.

Longworth Rambler.—Like the old Gloire de Dijon referred to, Longworth Rambler continues to bloom over a very long period. With me it

started the first week in June, and past experience leads me to expect that it will not be without flowers until well into the autumn. They are bright red in colour, and are borne in clusters of several blooms. Pillar, arch or pergola.

Mme. Alfred Carriere.—This charming and sweetly scented old white Rose makes a fitting companion to Longworth Rambler. It is almost continuous flowering, and will grow in nearly any soil or position. It is one that is disposed to go bare at the base, and should be treated as before advised. Beyond that, hard pruning is not advisable. Pergola, arch or red wall.

Bouquet d'Or.—This may be regarded as an improved Gloire de Dijon, its buff yellow blooms

coming a better shape. It is not, however, so free-flowering. Pergola, pillar or south wall.

Cheshunt Hybrid.—An old but very fragrant Rose that still deserves a place. The colour is cherry carmine, but when exposed to strong sun takes on a rather objectionable magenta hue. Pillar or west wall.

Florence Haswell Veitch.—A comparatively new Rose, with exquisitely shaped and fragrant flowers of glowing crimson colour. It flowers early and continues over a long period. Pillar.

Gustave Regis.—When discussing this Rose with Mr. E. Mawley, the president of the National Rose Society, some months ago, he confessed his

Climbing Lady Ashtown.—A very good pillar Rose with deep pink, fragrant flowers. Rather subject to mildew.

Climbing La France.—The ordinary La France is a silvery pink Rose, too well known to need description. The scandent form is its counterpart in every way except habit. Pillar.

Climbing Liberty.—This and the rambling form of Richmond I have not, so far, been very successful with, though I have seen them doing well as pillars. Both are beautiful glowing crimson flowers of exquisite shape and are fragrant.

Mme. Isaac Pereire.—This is an old Bourbon Rose that is worth growing for its delicious

ROSE-GROWING IN TOWN GARDENS.

CLOUR in relation to the Rose is of the first importance, yet it is, unfortunately, the attribute which is the most easily lost. To such an extent is this the case with many varieties that it is quite exceptional to see really typical blooms of them, and especially so where the plants are grown under the adverse conditions usual in town gardens. There are a number of causes contributing



THE RAMBLING FORM OF ROSE CAROLINE TESTOUT ON RUSTIC ARCHES.

inability to grow it satisfactorily. Enquiry elicited the fact that it had been treated as a dwarf bush. It should be grown as a pillar or over a low fence. Although not over-large, its nankeen yellow blooms are exquisite and particularly good for button-holes. Flowers well in autumn.

J. B. Clark.—This is a very large flowered Rose of cherry red colour. The fragrant blooms open early and continue for a long period. Pillar.

Juliet.—Although this fragrant variety does best when the growths are permanently pegged down, it succeeds well as a pillar, providing the shoots are tied down after light pruning until growth is well advanced. The colour is bright rose, with old gold on the reverse of the petals.

fragrance. The large blooms are produced freely, but they are of poor shape, and the rather dull rose carmine colour is somewhat objectionable. It grows vigorously and makes a good pillar.

Climbing Mrs. W. J. Grant.—Except in habit, this is a counterpart of the bush form, the large, deep rosy pink blooms being produced in abundance. It is one of the earliest to flower, and excellent for a pillar or light-coloured wall.

Zephyrine Drouhin.—This is commonly known as the Thornless Rose, as its branches are devoid of spines. It is a beautiful variety for a pillar 5 feet or so in height, producing its bright carmine pink flowers in great profusion. They are exceedingly fragrant.

F. W. H.

to this loss of colour, not least of which is the weather; but whereas some varieties will only appear at their best during a dull and humid spell, there are others which benefit and take on a deeper tint under the full rays of the sun, so that it is impossible for all to be suited. Apart from the weather conditions, there are several other factors which conduce to improvement of colour, over which it is possible to exercise control, so that we may to some extent improve the beauty of the blooms by studying their requirements.

The first essential is vigour in the plants. No one who has grown Roses, even on the smallest scale, can have failed to notice that weakness in the tree makes itself evident in the hue as well

as the size and shape of the bloom. Any check during the period when the buds are expanding, such as is caused by dryness at the roots, will also have a bad effect upon the colour.

The grower needs to bear in mind that the flowering period puts the greatest strain upon the energies of the plants, consequently the roots are then at their busiest gathering and assimilating sufficient food to enable them to produce the blooms, and unless sufficient supplies are present in the soil, the results are likely to be imperfect.

As nourishment can only be taken up in liquid form, it is obvious that any dryness at the roots means starvation to the plants. Many of the root fibres are near the surface of the beds, and, indeed, the object of the grower is to encourage them there, since they are then more easily fed and aerated.

their growth is most active and they are requiring nourishment upon a larger scale in consequence.

The effect of these supplies of food when carefully administered is that the growths remain unchecked, the blooms open more quickly, and their colour is then seen at its best.

Many of the red Roses lose greatly by exposure to the sun, and in the case of these, when the blooms are required for exhibition or decoration, they must be cut in as early a stage as possible and allowed to expand subsequently in water. J. B. Clark, as an instance, must be gathered directly the outer petals have turned back, either late at night or first thing in the morning. Red is not by any means the only colour affected, the combinations of yellow and pink tints being among the most fugitive, and in this case it is nearly always the yellow that disappears, leaving the

Godetia Lavender.—This cannot fail to become immensely popular by reason of the profusion of its mauve-coloured cups. The colour towards the base shades to white, with a touch of red at the centre. More shapely than many of its tribe, the flowers, three or more in a cluster, terminate the wiry 18-inch-long stems, which render it ideal for cutting. We think very highly of what was generally pronounced to be an ideal subject for the garden. From Messrs. Carter and Co., Raynes Park, S.W. See illustration page 325.

Rose Cupid (H.T.).—A pillar Rose of fine growth, abundant flowering and great charm, which, by reason of its large size and exquisite colouring, is destined for universal popularity. The dominant colour of the expanded flower is delicate salmon pink, merging to flesh, with which the large array of golden anthers is in delightful harmony. We know of nothing to approach the exquisite colour tone. (See illustration.) From Messrs. B. R. Cant & Sons, Colchester.

Iris filifolia.—Mr. W. R. Dykes, Godalming, exhibited a vase of this handsome species, which, so far as we remember, has not been seen before at these meetings. It is described in Mr. Dykes' book of the Iris and in that of Mr. Lynch. The plant now referred to has rich reddish purple, compactly built flowers, with a conspicuous orange blotch on the falls, and is quite distinct from the blue-flowered form which often bears the name, and which approximates to *I. tingitana*. Mr. Dykes' plants were raised from seeds gathered at the top of the Rock of Gibraltar.

Campanula pusilla Miss Willmott.—We imagine everybody who cultivates alpine plants knows this beautiful silvery blue, dwarf-growing Harebell. If not, they should make its acquaintance without delay. It is quite one of the best and most distinct. Shown by Mr. Clarence Elliott, Stevenage.

Delphinium Queen of the Belgians.—A lovely semi-double variety of Cambridge blue colouring. The flowers are large and arranged in a rather close spike. From Mr. W. Ferguson, The Hollies, Weybridge.

Linaria macedonica.—A very handsome and effective plant for grouping. The flowers are large, rich yellow, with deep orange-coloured throat. The neat, ovate, glaucous foliage is also striking. It is about two and a-half feet high. From Messrs. Waterer, Sons and Crisp, Bagshot and Twyford.

Odontioda Red Cross (Odontioda Gooksonii × Odontoglossum ardentissimum).—The flower is of medium size, of brighter red tone than is usually seen, finely edged white, with white lip.

Lælio-Cattleya canhamiana Fowler's Variety. A large-flowered variety, having long, rather narrow sepals and petals coloured delicate lilac pink. The lip is very bold and imposing, wholly coloured rich purple. These two novelties were from Mr. J. Gurney Fowler, Pembury, Kent.

The whole of the foregoing novelties were exhibited before the Royal Horticultural Society on June 22, when the awards were made.



THE NEW PILLAR ROSE CUPID SHOWN IN LONDON LAST WEEK BY MESSRS. B. R. CANT AND SONS.

Hence if the drought penetrates even a little way, ill-health will often result.

Assuming that the moisture in the beds has been well maintained, a Rose is capable of extracting a much larger amount of food from the soil during the early summer months than it requires during the remainder of the year. It is necessary to make certain that the requisite supplies are present in a form that is readily available, and for this reason we give an early spring dressing of manure, artificial or otherwise, containing phosphates and potash in a form which becomes available soon after application and lasts for the remainder of the growing season.

Nitrogen, if given in the shape of sulphate of ammonia, is much quicker in its action, a veritable stimulant which should be given only when the plants are actually in need of it; that is, when

pink predominating, as in Prince de Bulgarie, Lyon and Joseph Hill. Careful shading and early gathering will have some effect in preserving the colour.

P. L. GODDARD.

NEW AND RARE PLANTS.

AWARDS OF MERIT.

Erigeron hybridus Asa Gray.—This charming plant requires to be seen in groups amid suitable environment. The flower-heads are pale buff colour with orange-toned disc, and arranged in front of the towering bronzy spires of *Eremurus Warei* or *E. Shelford* the effect is very fine. A most profuse-flowering subject, not quite two feet high. Shown by Messrs. Wallace and Co., Colchester.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

The Fruit Garden.

Late Vines.—The final thinning of late Grapes should be completed without delay. Those varieties required for the latest supplies must be well thinned out, especially in the centre of the bunches. When the trellis has been covered with foliage, all laterals must be removed as they appear. If not already done, the borders must be mulched with rich farmyard manure, after which a good watering should be given. During warm, congenial weather ventilate the house liberally, especially during the period when the berries are subject to scalding. If mealy bug is present on the rods, this pest must be diligently sought after, as it is most important that late Grapes should be free from it.

Midseason Vines.—Give plenty of air to Grapes which are ripening, and during very warm, congenial weather fire-heat may be dispensed with. When there is no heat in the pipes, the house must not be damped late in the afternoon. Cover the glass with a double thickness of fish-netting, or syringe limewash on the glass when the Grapes are ripe.

Muscat Grapes.—In very hot weather it is necessary to place a shading on the glass, or the foliage will scorch. Reduce the fire-heat to the minimum when the weather will allow. On certain occasions fire-heat may be dispensed with altogether.

Plants Under Glass.

Ipomœa rubro-cœrulea.—This beautiful greenhouse climber is very useful for the decoration of breakfast or lunch tables if suitable receptacles are provided. Here we raise a batch of plants at the present time for flowering in late autumn and winter. The plants are flowered in 10-inch pots and trained over the roof of a house with a temperature of 60°.

Carnations.—Attention must now be given to the layering of Malmaison Carnations. Place a frame on a partially shaded border in which to layer them. A suitable compost is one consisting of sifted loam and leaf-soil and coarse sand. Keep the frame rather close and shaded from bright sun till the layers have rooted, then gradually inure them to cooler conditions. Other Carnations may be layered in the same manner.

Chrysanthemums.—The young plants which have been struck for flowering in 5-inch or 6-inch pots should now be ready for their final potting. Give them a rich compost and pot firmly. When potted, plunge the pots in ashes in an exposed position.

Hydrangeas.—When flowering is finished, cut off the flower-heads and place the plants outdoors in a sunny position. The pots should, if possible, be plunged in ashes; the plants will not then require so much attention in regard to watering.

The Flower Garden.

Spring-Flowering Plants.—Seedling plants of Wallflowers, Pansies, Aubrietias, Alyssums and Silenes may be pricked out into the reserve beds. See that the ground is well broken up and raked to a fine tilth, and should it be dry, give a good soaking of water. Polyanthus should be pricked into boxes or frames till they are large enough to be planted out in the open. Old plants may be divided and planted in a shady position. Delphiniums, Anchusa, Chelone or any perennials which have been raised from seed may now be transplanted in well-prepared ground in the open.

Geum Mrs. Bradshaw.—Seeds of this effective border plant may be sown now in boxes of fine soil. Place the boxes in a cold frame, and keep them shaded till the seeds have germinated. When large enough, the seedlings may be potted into 3-inch pots. These plants will flower early in the spring. Another sowing may be made in the autumn for flowering later.

Pinks.—A fresh stock of Pinks may be raised either by layering or by inserting cuttings. If the latter method is adopted, the cuttings should be inserted thickly in cutting-boxes and kept in a close frame till they have rooted. The frame must be shaded, and the cuttings syringed two or three times a day. When rooted, gradually expose them to more air.

The Hardy Fruit Garden.

Figs.—Pay timely attention to the removal of all superfluous growths, so that the sun and air may penetrate right through the trees. Retain the growths which are short-jointed and of moderate strength. Give the trees a vigorous washing two or three times a week with the hose-pipe. If not already done, a mulch of short manure should be placed over the roots. Plenty of stimulants must be given to trees carrying full crops of fruit.

Thinning Apples.—These promise an abundant crop this season, and if Apples of the finest quality are desired, many of the fruits must be removed. Recently planted trees which are not over-strong should not be allowed to carry fruits at all. This will help to put vigour into the growth of the trees.

The Kitchen Garden.

Vegetable Marrows.—The plants are now in active growth, and unless the shoots are thinned and regulated about once a week, the crop will be of short duration. Give abundance of water during dry weather, and supplement this with an occasional dose of liquid manure.

Lettuce.—Small sowings of this valuable salad should be made every ten days. During showery weather transplant seedlings.

Onions.—Those which were planted with a view to obtaining very large bulbs must be watered liberally. Before water is given, artificial manure or soot should be dusted between the plants. An occasional dose of diluted farmyard drainings will also be beneficial.

Cauliflowers.—A good plantation of Autumn Giant Cauliflowers should be put out now on a piece of ground which has been well manured. A good quantity of autumn Broccoli must also be planted to succeed the Cauliflowers. Keep them well supplied with water till they have made a good start in the new ground. All vacant ground must be prepared for planting winter crops without delay.

Shallots.—This crop should now be ready for lifting. Spread the bulbs out on the ground to dry preparatory to storing them in a cool shed.

—E. HARRISS.

(Head-gardener to Lady Wantage.)
Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

The Flower Garden.

Roses.—Both dwarf and climbing plants must be kept free from insects by occasional sprayings with Quassia or similar insecticides. Climbing plants will require the temporary tying up of young growths. They are best not tied permanently until after flowering, when pruning and thinning out of the growths that have flowered should take place. If mildew is prevalent, spray with an effective mildew specific, or dust with sulphur. Should the ground get very dry owing to insufficient rainfall, watering will have to be resorted to, and some stimulant should be given at the same time.

Dahlias.—If good individual flowers are required, a certain amount of attention must be given to disbudding and restriction of the number of growths. The old-fashioned method of trapping earwigs by placing inverted flower-pots partly filled with moss on the tops of the stakes is a good one, and should be practised. If the pots are examined frequently, the insects trapped can then be destroyed.

Sweet Peas.—The plants raised in pots from seed sown during the autumn are now flowering freely, and the question of watering will largely depend on what rain has fallen. The harm through insufficient watering shows itself by flower-buds dropping when quite small. If hoeing is done regularly and frequently, ten days should elapse between the applications of water. Plants which are disbudded and restricted to only two or three stems, require tying weekly. This may seem unnecessary work to some, but it is only possible to get first-class blooms by this system. The flowers should be cut as they open, whether they are required or not, so as not to waste any energy of the plants in developing seed-pods.

Plants Under Glass.

Gardenias.—Spring-rooted plants will be ready for another potting on, which should be into 4-inch or 4½-inch pots. Use good fibrous loam and a fair proportion of peat. During bright weather the blinds will be constantly in use, but should be pulled up whenever the sky becomes clouded. Damping down must be frequent, and the plants constantly dipped and sponged to keep down insect life.

Celosia pyramidalis.—If sown during the next fortnight, it is possible to have these plants in flower from November until February without any very special treatment. They flower quite well in 3½-inch and 4-inch pots. A warm greenhouse or intermediate temperature suits them.

The Kitchen Garden.

Broccoli.—Early winter varieties, such as Veitch's Self-Protecting, should now be planted. As very rich soil is not required, the ground which is being cleared of early Potatoes would do, and will not require any manuring previous to planting. As it is also undesirable for late winter and spring varieties to grow to a large size, owing to their not being able to withstand the winter so well as small and firm plants, the planting of these should be delayed still further.

Spinach which has run to seed can be cut down and dug into the ground. More might be sown for later use in some moist or shady border.

Endive.—This salad is not usually in much demand until Lettuces are scarce during the winter. If, however, it will be required during the autumn, seed should be sown now.

Celery.—Planting must continue as the plants become ready for setting out. They should be well watered immediately, and those planted out at an earlier date must not be neglected in this important matter if the weather is dry.

Vegetable Marrows.—Plants which are commencing to bear should have the fruits removed before they become large, whether required for use or not; this encourages more young fruits to swell. Where the plants are in an exposed position, it is safest to peg down the growths to prevent them becoming twisted and broken.

Fruit Under Glass.

Melons.—Being essentially a summer fruit, there is no great demand for Melons after the approach of cold weather in October and November. During the next week will be quite late enough to make a final sowing if the fruits are to develop that fine flavour that can only be had by the influence of abundant bright sunshine. As late crops are liable to get infected from earlier crops infested with red spider, every care should be taken to prevent this happening.

Ripe Grapes which are still uncut in the early viney will be better cleared for use, both for the sake of the Vines and the fruit, as with continued sunshine the berries will commence to shrivel. After cutting, the entire house should receive a good hosing or syringing to cleanse the woodwork, glass and the Vines. Syringing should be done daily, both in the morning and afternoon, and abundance of air admitted. A fair amount of food should still be applied whenever the borders require water.

Figs.—Where one has a number of Figs, the trees will be at different stages in separate houses. The early Figs are fast developing their second crop, and should have liberal treatment with manures, both in the materials used for top-dressing and by applying them when watering. Where Figs are ripening, a slightly drier atmosphere must rule, and the fruits should not be gathered until they show signs of cracking.

The Hardy Fruit Garden.

Peaches.—During dry weather the trees will benefit by a good syringing between 4 p.m. and 5 p.m. Insect life must be watched for, and destroyed on making its first appearance by spraying with a reliable insecticide. The trees must again be gone over to reduce the number of fruits, and the young growths nailed in their places, or, if the wall is wired, they ought to be tied in position. Laterals which may appear on the young growths should be pinched off when young and tender.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

SEASONABLE NOTES ON CHRYSANTHEMUMS.

NEW VARIETIES ON TRIAL.

It is always very interesting to watch the progress of the plants of new varieties, as many of them, like Roses, have distinctive foliage. It is quite possible for an expert to tell the names of the varieties of Chrysanthemums from the foliage.

Sports bear the features of their parents, but new ones emanating from seeds often have very distinct foliage, and the cultivator, growing them for the first time, must guess as to height and other details.

The Buds.—Undoubtedly the most interesting and absorbing feature is the bud of the new variety. If only one plant is grown, there is not much choice for selection, as either early or very late buds must be depended on. If several plants are grown, then both classes of buds can be selected, and I would advise cultivators to secure both kinds; then if the blooms from the early buds are disappointing, those from the later ones will probably be very satisfactory, and afford full compensation for the sacrifice of the others.

Tying and Training.—The plants are now growing freely, and all that are healthy will continue to do so with added vigour as the autumn days come. The shoots of all plants do not require tying every day, but certain ones will, and thus the cultivator will have some tying to do every day if he wishes to keep all shoots secure against strong winds. There are two methods of tying—one, the fastening of each shoot to the stake to within 2 inches of the point; the other, looping several of the shoots to one stake. When the latter method is followed, the strand of matting is passed round the shoot about nine inches below its point; that part of the stem is fairly hard, and does not readily break off when bent by the wind. This is a good way of securing the branches of specimen plants and others grown for the production of cut flowers and for greenhouse furnishing. Always allow space for the swelling of the stems, else the latter will buckle and break off. After a shower of rain the tying material slips down and becomes very tight; allowance must be made for this. It is also advisable to examine the ligatures on exhibition specimens and put them right again.

Side Shoots.—These grow rapidly, too, and must be removed while quite small, else they will rob the plants of much strength. All plants should be restricted to main stems and main leaves, and, later on, to crown or terminal buds in addition. If the side shoots growing in the axils of the leaves are left to attain a large size, it is scarcely possible to remove them without doing some damage to either the leaf or stem. If cut away, then more shoots grow. So the best plan is to pinch them out with the fingers and thumb while quite small.

The First Top-Dressings.—The up-to-date cultivator does not rely on one, or even two, top-dressings, but begins in July and continues to put on thin layers of a suitable compost as frequently as the roots require it. We will presume that ample space has been left for top-dressing material. Probably some of the plants were finally potted early in May. By the present time the new soil will be filled with roots, and it would be bad policy to wait until a certain date before giving them the assistance they stand in need of from a surface mulch. The compost should consist of rich loam, passed through a half-inch

mesh sieve, one part; sweet leaf-soil, also sifted, one part; some good rotted manure, one part; and sand and a reliable concentrated manure, as advertised in the pages of this paper, one part. A fairly large bulk of compost may be prepared and stored in a cool shed, to be used as necessary. Pick out all those plants that show roots on and near the surface. See that the ball of soil is watered thoroughly, and then put on a sprinkling of the mixture prepared, just enough to nicely cover the surface. Afterwards all water and liquid manure must be applied through a rosed watering-can, so as not to disturb the new soil and injure the roots permeating it. Always rap the pot to ascertain if the old ball of soil is moist enough below, otherwise the wet appearance of the top soil might prove misleading. The roots will soon enter the fresh compost and show on its surface like little white knuckles. When advanced as far as this, it will be time to apply another top mulch, and so the work should go on until the space is filled up. The steady progress of the plants is better ensured thus than when one heavy surface-dressing is given.

"Taking" Buds.—It seems early to be thinking about the work of "taking" buds, but it is not too soon, as the first-crown buds of some of the naturally late-flowering varieties will appear during the last few days of July. Now, if these buds are removed, the next ones will be too late, especially for exhibition purposes. Begin to "take" them when they are quite free of the side shoots by pinching out one shoot every other day. By August 5 the buds will be "taken."

AVON.

SEASONABLE NOTES ON VEGETABLES.

MUCH detail work with the various vegetable crops has to be gone through at this season if success is to be achieved. A spell of dry weather brings much work, and unless prompt steps are taken to combat the evils of drought, the work of months may be undone. For instance, a crop of Peas just coming into bearing may easily be ruined by an attack of mildew consequent on drought at the roots; whereas a timely heavy watering, afterwards mulching each side of the row with short manure or decayed vegetable refuse and old potting soil to conserve the moisture, will save the crop. I drew attention to this subject some few weeks ago; but the matter is so important, having such a wide bearing on the success or otherwise of the crop, that I offer no apology for again drawing attention to the matter.

The Value of Surface Cultivation.—Among such crops as Carrots, Parsnips, Beet and Turnips, where it is not practicable to apply mulchings, or even water, stirring the surface soil 1 inch or 2 inches deep with a Dutch hoe is of inestimable value, preventing cracks being made in the soil, and so retaining moisture.

Broad Beans.—Following a mild winter those sowings made in October or November have proved a success; full crops of good Beans have been secured much earlier than from spring sowings. The plants now podding should have assistance with heavy waterings of liquid manure if possible. If extra good pods are required, thin the clusters, thus giving the plants less to

support. Later batches now coming into flower should be topped, to induce a quicker setting of pods and to destroy black fly, which quickly infests the growths during dry weather. Plants badly affected should be syringed with some insecticide, such as Tobacco water and soft soap.

Asparagus.—This crop has been a huge success this season where cultivation is of a reasonable character. It is surprising how well Asparagus grows in stiff soil if properly prepared by deep trenching and heavy manuring. Cutting should cease by this time, and, where possible, young plantations should be assisted with copious supplies of liquid manure or sewage water. Indeed, old beds would receive much benefit by such treatment, as the more robust the growth now, the greater is the prospect of improved returns next season. Keep the soil quite clear of weeds.

Cauliflowers.—April-sown plants will now be ready for putting out in quantity. Mammoth, for instance, will not require so much space as Autumn Giant. Water in when planting; then the next day loosen the soil about them, and keep them regularly supplied with moisture until finally established.

Celery.—The early sown batches are now making rapid headway. Plants required for use in August should have the first paper bands put on instead of blanching with soil, as under the former method the plants can be regularly supplied with water to increase the size of the stems. Continue to put out plants in trenches for the general crop. Double rows answer as well as single, and economise space. Some plant three rows in one trench, and although this method will succeed, it is much more difficult to earth up the plants properly. Well water newly put out plants, dust them lightly with soot occasionally, and sprinkle the plants overhead with water in the evening after a hot day.

Parsley.—Make a sowing for winter use, choosing a sheltered site in a district where there is any difficulty in keeping up a supply during the winter months, or, what is better still, sow on a south border where a frame can be put over the plants in the autumn. For autumn use, continue to put out plants from the first sowing on a border as an edging to a path, where it is handy to pick from. Plants that have done duty during the winter and spring are now running to seed, and should be pulled up, as they are useless. Manure and dig over the ground, and put in another crop of some kind.

Vegetable Marrows are growing away freely, and need quantities of water to ensure full and early crops of quickly grown Marrows. Thin out the shoots to prevent overcrowding, which is a hindrance to a full crop, often resulting in the premature dropping of small fruits, even when they are thought to be safely "set" and swelling. Want of moisture at the roots is also often the cause of this trouble. Excessive manure for the roots to ramble in will also cause this premature casting of fruit.

Outdoor Tomatoes are now growing freely, and should be encouraged to do so as much as possible by nightly syringings after a hot day, especially when the plants are at the foot of a south wall. Until a full crop of fruit is set, liquid manurial stimulants are not required; in fact, such may do harm, as too gross a growth might result, causing premature dropping of the fruit blossom.

Swanmore Park, Hants.

E. MOLYNEUX.

ANSWERS

TO CORRESPONDENTS.

FLOWER GARDEN.

DOUBLE DAFFODILS NOT FLOWERING (A. B. C., *Laues*).—The bulbs have obviously been too long in their present position, and have become crowded and weak; hence their not flowering. We presume they are healthy, as you say nothing to the contrary. The remedy is lifting, division and replanting. Allow the growth to fully mature, and lift the bulbs any time during the first half of July, laying them out quite thinly in any airy shed or shady place on a hard bottom in the open. By the end of July they will have dried sufficiently, and may be divided, separated into two or three sizes, and roughly cleaned ready for replanting. The largest bulbs may be replanted in a bed or border; the others had better be planted in a reserve plot in lines a foot asunder and an inch or so between the bulbs. Four inches deep will be sufficient for all. Plant the larger bulbs 3 inches to 5 inches apart in beds; this will afford them room to develop, and may suffice for three or four years. Do not replant any in the old positions, but choose a fresh site for the bulbs. In this way they get the benefit of new soil, which is most important. Let the ground be deeply cultivated and moderately manured. Keep the manure well below the bulbs. Replant any time in August, the earlier the better. It is highly probable that the bulbs will not flower next year owing to weakness, but by adopting the above measures you will be laying the foundation for future success.

MISCELLANEOUS.

CUTTING DOWN PÆONIES AFTER FLOWERING (Clogher).—It would be unwise to cut down the Pæonies immediately after flowering, as it would undoubtedly very considerably weaken the plants, and in all probability prevent them flowering next year. It should be remembered that a plant feeds through its leaves almost as much as through its roots, both sources being necessary for proper development. The seed-pods ought to be removed immediately they are formed.

STARTING A BUSINESS (Tea Planter).—We have referred your letter to an expert of long standing in these matters, who sends the following reply: "It is not easy satisfactorily to answer the questions submitted from the particulars given. The land may be cheap or dear, depending upon its quality, the possibility of approach and the distance or nearness to a railway station, since all the goods produced will have to be sent some distance. That there is plenty of land in the district named eminently fitted for bulb-growing is well known, though it does not follow that the field referred to is included therein. If you have seen it, you should be the better judge. The price for the glass houses and sheds appears reasonable on the face of it, but may be cheap or dear according to material supplied, viz., wood, glass, quality and number of coats of paint, hot-water piping and general efficiency of heating. Tomatoes under glass are only really profitable when obtained quite early, i.e., ripe in June and July, and, in order to secure this result, not only is an early start necessary, but absolute efficiency in heating. In any case the number of plants named—3,000 per house—is far in excess of what could reasonably be accommodated, and overcrowding has to be paid for pretty dearly at times. Generally speaking, the price for the glass houses, if these were isolated—that is, separately built—would be considered reasonable, and dear if arranged on the compound plan. We note they are all of one size, whereas a smaller structure apart for raising the young plants is, in our opinion, essential. Have you not been supplied with a specification of what is to be done for the amount named? This is most important from every point of view, in your own interests and as concerns the stability and due execution of the work. If you have a specification, you should confer with an expert to go through it with you, as only by a critical examination of it could any satisfactory conclusion be reached concerning the cost. As the estimated initial outlay is considerable and much other expense must be faced before any return is possible, we think your better plan, seeing you have no practical knowledge of the subject, would be to obtain independent advice before proceeding further in the matter."

NAMES OF PLANTS.—A. B.—We cannot name plants for anonymous correspondents. Please see and observe rules which appear nearly every week.—*Stewart Irwin*.—*Zephyranthes carinata*.—W. H. S.—1, *Quercus rubra*; 2, *Cotoneaster frigida*; 3, *Coronilla varia*; 4, *Geranium Endressii*; 5, *Erodium Manescavii*; 6, *Veronica Tuericum*; 7, *Erodium macradenum*; 8, *Helianthemum vulgare venustum*; 9, *Rose Goldfinch*; 10, *Sedum species*.—A. T. *Somercote*.—1, *Sedum album*; 2, *Sedum species*; 3, *S. rupestre*. These names are provisional, for the specimens were too small for correct determination.—W. C. B.—*Akebia quinata*.—J. G. K.—*Burning Bush* (*Dicamnus albus purpureus*).—*Hedgerley*.—*Sea Milkwort* (*Glaux maritima*).—R. H. *Chard*.—*Rose Clio*.—E. H. W.—The Maidenhair Fern Tree (*Ginkgo biloba* or *Salisburia adiantifolia*).—R. M. E. Y.—1, *Paul Perras*; 2, *Paul Ricaut*; 3, *Mrs. J. Laing*; 4, *Baron de Bonstetten*; 5, *Juno*.—*Mac, Deal, Kent*.—1, *Alister Stella Gray*; 2, *Blush Boursault*.—L.—No. 1 is *Margaret Dickson*. You will find *Mme. L. Constantin* (H.T.) resembles it. It is a semi-climber, and makes a fine big bush. No. 2 is *Lady Waterlow*.—A. *Hodgson*.—*Mrs. Stewart Clark*.—A. G.—*Primula japonica* and *Ranunculus aconitifolius*.

SOCIETIES.

CITY OF LONDON ROSE SOCIETY.

THE third annual show in connection with the above society was held at the Cannon Street Hotel on Thursday, the 24th ult., and proved a great success. Indeed, it was the best show the society has held. The blooms were excellent, and in most classes competition was very keen. The arrangements reflected the greatest credit on the energetic hon. secretary, Mr. A. E. Prothero, and the committee. In the evening the flowers were sold on behalf of the British Red Cross.

NURSERYMEN'S CLASSES: EXHIBITION ROSES.

In the nurserymen's champion trophy class, forty-eight blooms, distinct varieties, were asked for. There were six competitors, Messrs. B. R. Cant and Sons, The Old Rose Gardens, Colchester, being placed first. Though not over-large, their blooms were very clean and even, and no doubt this carried weight with the judges. Kil-larney, H. V. Machin, J. B. Clark, Mrs. W. J. Grant, Freda, Edward Mawley and Mrs. George Norwood were a few of the best blooms. The second award went to Messrs. R. Harkness and Co. of Hitchin, who had large, well-coloured flowers, notable among them being George Dickson, Mrs. A. Hawsworth and Mildred Grant. Messrs. Chaplin Brothers, Waltham Cross, were third.

In Class 2, for twelve distinct varieties, three blooms of each, there were five exhibits, Messrs. B. R. Cant and Sons again occupying the premier position. Their blooms were clean and good, Augustus Hartman, St. Helena and Mrs. George Shawyer being the best. Messrs. D. Prior and Son of Colchester were second, Maréchal Niel and Mildred Grant being in splendid condition here. Messrs. Alex. Dickson and Sons, Limited, Newtownards, Ireland, were third, their blooms of Dean Hole being very fine.

For eighteen blooms, distinct varieties, Teas and Noisettes, three competitors tried conclusions, the premier award going to Mr. George Prince, Longworth, Berks, for some very fine, well-coloured flowers. Maman Cochet, Medea, Mme. C. Soupert and Nita Weldon called for special mention. Messrs. Frank Cant and Co., Braiswick, Colchester, were placed second, their flowers being good, but rather small. Comtesse de Nadailac and Mme. Jules Gravereaux were their two best. Messrs. D. Prior and Son of Colchester were third.

DECORATIVE ROSES.

The class for eighteen bunches, distinct varieties, was very charming, three exhibitors staging some very attractive bunches. Messrs. Frank Cant and Co., Braiswick Rose Gardens, Colchester, were first, such varieties as Rayon d'Or, Lady Pirrie, Lady Hillingdon, Lady Battersea and Una showing to great advantage. Messrs. W. and J. Brown of Peterborough were a good second, Mrs. Rosalie Wrinch, Sarah Bernhardt and Irish Fire-flame being very charming. Mr. George Prince of Longworth was third, his flowers also being clean and good.

The class for seven baskets of cut Roses was rather spoiled by the baskets being staged in different parts of the building. Messrs. Chaplin Brothers, Waltham Cross, were a good first with a magnificent display, their Irish Fire-flame, Lady Ashtown, Old Gold, Mrs. Herbert Stevens and Mme. Edouard Herriot being exceptionally pleasing. Mr. E. J. Hicks, Hurst, Berks, was second, his baskets including his new crimson single Princess Mary and Rayon d'Or. Mr. George Prince was a good third.

For twelve blooms of new exhibition Roses, distinct varieties, introduced in 1912, 1913 or 1914, five competitors tried conclusions, the first prize going to Mr. George Prince, Longworth, for a really wonderful dozen. Edgar Burnett was a magnificent bloom, and Mrs. Forde also called for special mention. Mr. E. J. Hicks, Hurst, Berks, was second, his box including a marvellous bloom of the new crimson Augustus Hartman. Messrs. B. R. Cant and Sons, Old Rose Gardens, Colchester, were third.

OPEN AMATEURS' CLASSES: EXHIBITION ROSES.

In the open amateur trophy class, twenty-four blooms, distinct varieties, were asked for, and four exhibitors tried conclusions, Mr. H. L. Wettren, Sanderstead, Surrey, winning the trophy with some remarkably good blooms. William Shean, Amy Hammond and Mildred Grant were of exceptional merit. Second honours went to Mr. G. C. Sawday, Weybridge. We noticed St. Helena, Mrs. J. H. Welch and Mrs. Foley Hobbs in grand form here. Mr. W. Onslow Times, Hitchin, was placed third.

For twelve blooms, distinct varieties, there were five boxes staged, the best coming from the Rev. F. R. Burnside, Great Stambidge Rectory, Essex. Mrs. W. J. Grant and Mme. Melanie Soupert were two notable flowers. Mr. G. C. Sawday, Weybridge, was a good second, his flowers of St. Helena and Mrs. J. H. Welch being exceptionally fine. Third prize went to Mr. L. Courtenay Page, Enfield.

MEMBERS' CLASSES: EXHIBITION ROSES.

Open Only to Members of the Society. Twelve blooms, distinct varieties, had to be shown for the City of London Championship Trophy. There were two competitors, Mr. H. L. Wettren winning the first prize in fine style. His blooms were large and good throughout, and we have rarely seen Bessie Brown and Mrs. Foley Hobbs shown better by an amateur. Mr. J. Hart was a good second, his flower of Mrs. J. H. Welch being magnificent.

For six distinct varieties, three blooms of each, there were only two competitors, the premier award going to Mr. H. L. Wettren, Water Lane, E.C., for some remarkably good blooms. His William Shean and Lady Ashtown were especially noteworthy. Mr. J. Hart, Spital Square,

E.C., was awarded second prize, his blooms being small, but good.

For nine blooms, not fewer than six varieties of Teas and Noisettes, there were only two competitors, Mr. J. Hart being placed first with good, solid flowers. His White Maman Cochet and Mme. Jules Gravereaux were very deep and fine. Mr. H. L. Wettren was second, his flowers being rather badly weather-marked.

For six blooms of any one variety, Mr. H. L. Wettren was first out of two competitors with a grand half-dozen of J. B. Clark. Mr. J. Hart coming second with rather small blooms of William Shean.

Open Only to Growers of Fewer than 1,000 Plants of Exhibition Roses.

For nine blooms, not fewer than six varieties, Mr. Lewis S. Pawle, Stock Exchange, was first out of six competitors, his Mrs. J. H. Welch and Mildred Grant being grand. Mr. H. Shurey, Tudor Street, E.C., was second, and third prize went to Mr. W. E. Moore, 43, Hatton Gardens.

In the class for six blooms, any one variety, there were six entries, Mr. L. S. Pawle coming first with Bessie Brown; Mr. R. de Escotet, 55, Holborn Viaduct, second with Florence Pemberton; and Mr. C. W. Edwards, Sutton, Surrey, third with Mme. Jules Gravereaux.

Class 15, for six blooms, not fewer than four varieties of Teas and Noisettes, brought only four boxes, all of which were rather poor.

Open Only to Growers of Fewer than 500 Plants.

For nine blooms, not fewer than six varieties, eight boxes were staged, first prize going to Mr. H. Shurey for a very good lot of blooms, J. B. Clark being his best. Mr. W. E. Moore was second, followed by Mr. C. W. Edwards.

For five blooms of any one variety to be shown in a vase, eleven vases were staged, Mr. A. E. Coxhead, 30, Milk Street, E.C., being first, Mr. A. E. Clarke second, and Mr. S. B. Langton third.

Open Only to Growers of Fewer than 250 Plants.

For six blooms, distinct varieties, Mr. W. Fortescue was first out of three competitors, being followed in the order given by Mr. A. Palk and Mr. E. J. Syer.

In Class 19, for six blooms, not fewer than three varieties, Mr. S. F. Chamberlain was first out of six competitors, his bloom of Mrs. J. H. Welch calling for special comment. Mr. W. Fowler was second, and Mr. W. A. Shipley third.

For three blooms of any one variety, to be shown in a vase, Mr. A. Palk was first out of ten competitors with good blooms of Mme. Melanie Soupert, being followed by Mr. W. Fortescue and Mr. A. E. Stanger.

Open Only to Growers of Fewer than 150 Plants.

In Class 21, for six blooms, not fewer than four varieties, six boxes were staged, Mr. W. E. Winstone, Stanning Lane, E.C., coming first with good blooms. Mr. D. Ribbons was second, and Mr. A. F. Blades third.

For three blooms, any one variety, to be shown in a vase, Mr. W. E. Winstone was a good first with three blooms of George Dickson, one of which secured the medal for the best bloom shown in Classes 18 to 25. Mr. E. C. Owen was second, and Mr. A. F. Blades third.

Open Only to Growers of Fewer than 100 Plants.

For six blooms, not fewer than four varieties, nine boxes were staged, the premier award going to Mr. W. Alstrom, 76, Great Eastern Street, E.C. Mr. S. H. Gregg was second, and Mr. F. G. Pocock third.

For three blooms of any one variety, to be shown in a vase, there were eleven entries, Mr. W. Alstrom being first with Mme. Melanie Soupert. Mr. G. Haward was second with Mme. Jules Gravereaux, and Mr. A. J. Collins third, Dean Hole being his variety.

In a similar class for growers of fewer than fifty plants as per list, Mr. L. R. Goddard was first, his blooms of Miss Cynthia Forde and Lady Alice Stanley being very fine. Mr. G. Haward was second, and Mr. W. Markham third.

METROPOLITAN CLASSES.

For twelve blooms, distinct varieties, four boxes were staged, the premier one coming from Mr. R. de Escotet, Dulwich. He had a magnificent bloom of William Shean, which secured the medal for the best flower shown in Classes 26 to 31. Mr. A. E. Clarke, Kent, was second, and Mr. A. E. Coxhead third.

The class for six blooms, distinct varieties, brought forth seven competitors, Mr. A. E. Stanger, Streatham Park, Mr. W. A. Shipley and Mr. A. Wilkinson winning in the order named.

For three blooms, distinct varieties, to be shown in a vase, ten vases were staged, Mr. W. Alstrom being first, followed by Mr. W. E. Winstone and Mr. R. S. Fitter.

INNER SUBURBS.

For nine blooms, distinct varieties, the trophy went to Mr. R. de Escotet, Dulwich, who had good, clean blooms. Mr. A. W. Burgess, Honor Oak, and Mr. W. A. Shipley, East Dulwich, were second and third respectively.

DECORATIVE ROSES.

For twelve bunches, distinct varieties, there were three entries, the first prize, including the decorative championship trophy, going to Mr. A. C. Turner, 29, Great St. Helens, E.C., for a most creditable lot of flowers, his La Tosca calling for special mention. Mr. H. L. Wettren had a very fine lot of blooms in his second prize group, but evidently lost points in arrangement. Third prize went to Mr. G. Gally.

For six bunches there were also three entries, Mr. A. C. Brown coming first with some very beautiful and well-arranged flowers. Mr. J. Walter Smith was second, and Mr. A. E. Clarke third.

For three bunches Mr. H. P. Page was first out of four competitors, his Aglaia being very charming. Mr. R. Woosnam and Mr. A. G. Warren followed in the order given.

For nine vases, distinct varieties, Mr. H. L. Wettern and Mr. A. C. Turner were the only competitors, winning first and second prizes respectively. Mr. Wettern's flowers were exceptionally well coloured, his Lady Hillingdon and Warrior calling for special mention.

For three vases Mr. P. L. Goddard was a good first in strong competition, staging Mme. Edouard Herriot, Mme. Leon Pain and Richmond in good condition.

LADIES' ARTISTIC CLASSES.

For a bowl of cut Roses with Rose foliage there were seven competitors, the Ladies' Challenge Vase being won by Mrs. A. C. Brown, Brakes Lodge, Reigate, with a very light and graceful bowl. Mrs. Alex. Robinson, Park Hill, Carshalton, was second, and Mrs. L. Courtenay Page, Enfield, third.

For a vase of cut Roses Mrs. A. C. Brown was again first out of five competitors, her vase being very lightly and artistically arranged. Mrs. A. P. Page was second, and Mrs. H. Straker third.

SPECIAL OPEN CLASSES FOR AMATEURS.

Class 40 was for nine vases of Roses, distinct varieties, not more than seven or fewer than five in a vase. There were five entries, the Red Cross Cup going to Mr. G. C. Sawday, Beechfield, Weybridge, who was a good first with magnificent blooms, his Mrs. J. H. Welch calling for special mention. Mr. H. L. Wettern was a close second, his G. C. Waud being exceptionally good. Mr. G. Marriott was third.

Class 41 was for five vases. The Rev. F. R. Burnside was first in strong competition, his Mme. Melanie Soupert and Betty being wonderfully well coloured. Mr. C. A. L. Brown was second, and Mr. A. E. Passingham third.

THE BEST BLOOMS IN THE SHOW.

Classes 1 to 6, Killarney, shown by Messrs. B. R. Cant and Sons.

Classes 9 to 17, Maréchal Niel, shown by Mr. J. Hart. Classes 18 to 25, George Dickson, shown by Mr. Winstone. Classes 26 to 31, William Shean, shown by Mr. Escotet.

NON-COMPETITIVE GROUPS.

Mr. W. Easlea, Danecroft Rosery, Eastwood, Essex, arranged a very beautiful group, comprising many new as well as some of the older varieties. Lady Bowater, a pale bluish Hybrid Tea of grand vigour, form and substance, attracted much attention. It is a new Rose that exhibitors will find very useful. Mme. Edouard Herriot, Lady Hillingdon, Irish Fireflame and Old Gold were others that called for special mention. Gold medal.

The Rev. J. H. Pemberton, Romford, had an artistic group composed mainly of the perpetual-flowering ramblers raised by him in recent years. A new one named Thisbe is very promising, the colour of the flowers somewhat resembling that of William Allen Richardson. The clusters are large and free.

Mr. E. J. Hicks, Hurst, Twyford, Berks, staged a large collection of ramblers and bush varieties, these attracting much attention. Among the larger flowers the new, very fragrant pink Mrs. George Norwood was very fine. The new Mrs. Charles Reed, cream, flushed deep pink, was also very good. Gold medal.

Messrs. Carter Page and Co., London Wall, had a fine group of Violas tastefully arranged in flat bowls, with Asparagus Sprengeri and Adiantum furnishing the necessary greenery.

CROYDON HORTICULTURAL SOCIETY.

THIS vigorous society merits congratulations from several standpoints to-day, though chiefly from the fact that the exhibition on June 23 was the forty-eighth held under the auspices of the society, and, with its jubilee in sight, is still going strong, and the equally important fact that the proceeds of the show were to be devoted to the Mayor's War Relief Fund. Patriotic in the highest degree, we think many other societies might have done likewise, thereby securing the sympathy of the public and turning horticulture to the best possible service in this hour of the nation's need. There were many excellent exhibits on view, though the Roses, both for quality and numbers, would be difficult to beat.

The Lady Eldridge Challenge Cup, for forty-eight Roses, distinct, brought three competitors, Messrs. B. R. Cant, The Old Rose Gardens, Colchester, who last year had the honour of winning the nurserymen's challenge cup outright, again occupying the premier position with an admirable lot, from which we selected Lady Helen Vincent, Edward Mawley (fine red), Mme. Melanie Soupert, Juliet, Lyon Rose, Elizabeth (very beautiful), H. V. Machin, George Dickson, Marquise de Sinety, Dean Hole and Killarney. Messrs. F. Cant and Co., Colchester, were second with many good flowers, Mrs. J. Bateman, H. E. Richardson (red) and Ulrich Brunner being among the best. Messrs. Prior, Colchester, were third.

For twenty-four Roses, distinct, four contested, Messrs. Chaplin Brothers, Joyning's Nurseries, Waltham Cross, being placed first, having superb examples of Mrs. J. H. Welch (pink), George Dickson, J. B. Clark, Mildred Grant, Mrs. C. E. Russell (pink) and Mrs. Chaplin. Mr. George Prince, Oxford, was second.

For twelve Roses, one variety, eight competitors entered, Mr. Elisha J. Hicks taking the place of honour with the rich pink, highly fragrant Mrs. George Norwood, the flowers being very fine; second, R. W. Hammond, Esq., Burgess Hill; third, Messrs. B. R. Cant, both showing Lady Ashtown.

Eighteen trebles, distinct: First, Messrs. B. R. Cant, Colchester, who staged Lady Helen Vincent, Margaret, J. B. Clark, Mildred Grant, Mabel Drew, British Queen, Lieutenant Chauré and others; second, Messrs. Chaplin Brothers.

Eighteen Teas or Noisettes, distinct: First, Mr. Henry Drew, Longworth, Berks, whose best were Mrs. Foley

Hobbs (silver medal), White Maman Cochet, Golden Gate (pink), Souvenir de Pierre Notting, Mme. Constance Soupert and F. V. Marshall (rose); second, Mr. G. Prince.

Twelve bunches of garden Roses: First, Mr. Elisha Hicks, Lady Hill, Lady Pirrie, Mrs. H. Stevens and Rayon d'Or being the best.

For five baskets of cut Roses in five distinct varieties, Messrs. Chaplin Brothers, Waltham Cross, were first with Duchess of Wellington, Mme. Edouard Herriot (very fine colour), Mme. Segond Weber, Richmond and Miss Cynthia Forde; second, Mr. Henry Drew, Longworth. A very attractive class.

AMATEURS' CLASSES.

Twenty-four Roses, distinct: The first prize, the Society's Challenge Cup, was won by Mr. H. L. Wettern, Sanderstead, who had superb examples of Edward Mawley, H. V. Machin (red), Lady Ursula (pink), Mrs. J. Laing and Mme. Jules Gravereaux. Dr. T. E. Pallett, Earl's Colne, Essex, was second, his Lieutenant Chauré gaining the silver medal.

Dr. Pallett was first for eight trebles, and secured the Frank Cant Challenge Cup, again showing Lieutenant Chauré admirably among others.

Dr. Pallett was again in the place of honour for eighteen Teas and Noisettes, having The Bride, Bridesmaid, Mrs. Foley Hobbs and White Maman Cochet.

Eighteen Roses, distinct: First, Dr. C. Lamplough, Kirkstall, Alverstone, Mme. Jules Gravereaux (silver medal), George Dickson, Mme. Constance Soupert and Mildred Grant being excellent.

Six Roses, one variety: The first prize (a piece of plate presented by the Mayor of Croydon) went to Mr. H. L. Wettern for a superb lot of J. B. Clark.

The finest lot of Sweet Peas came from Mr. W. Humphreys, Loampits, Tonbridge, his dozen including Hercules, Marvel (an improved Margaret Atlee), Mark's Tey (purple), Barbara (a most lovely orange), Elsie Herbert, King Manoel, Lavender George Herbert and others. The flowers were very fine.

Mrs. Wettern secured the first prize for a table decoration of cut Roses, employing Irish Elegance and light Rose trails to great advantage.

For a group of plants staged for effect, Mr. J. W. Colyer, gardener to A. H. Allen, Esq., Wandie Court, Beddington, was first, employing Crotons, Gloxinias, Begonias, Caladiums, Odontoglossums, Palms, Kalanchoe flammea and Ferns with considerable skill. Every plant, indeed, told. The group was well finished off with a border of Panicum variegatum.

NON-COMPETITIVE EXHIBITS.

In the non-competitive section Mr. Elisha J. Hicks had a superb stand of Roses, among which Mrs. George Norwood (fine fragrance, pink-flowered), Rayon d'Or (very rich in colour), Ada Paulin (a seedling raised by the exhibitor from Anna Olivier), Lady Hillingdon, Duchess of Wellington, Irish Fireflame and Princess Mary stood out conspicuously.

Messrs. Young and Co., Cheltenham, contributed a fine stand of Carnations, Bath's Premier (yellow), The Geisha (fancy) and Mikado being noticeably good vases.

THE WINDSOR ROSE SHOW.

By kind permission of His Majesty the King, the Windsor Rose and Horticultural Society held their twenty-fourth annual exhibition in the private grounds at Windsor Castle on Saturday, June 26. The exhibits were numerous and of the highest quality, and the competition was keen throughout. There were a large number of visitors, and all enjoyed the excellent music supplied by the 2nd Life Guards Band.

OPEN CLASSES.

The coveted King's Cup, presented by His Majesty as first prize for forty-eight blooms, distinct varieties, was won by Messrs. B. R. Cant and Sons of Colchester; second, Messrs. R. Harkness and Co., Hitchin; third, Messrs. Alex. Dickson and Sons, Newtownards; fourth, Messrs. D. Prior and Son, Colchester.

Class 2, eighteen distinct Teas: First, Messrs. Frank Cant and Co.; second, Mr. Henry Drew; third, Mr. G. Prince, Oxford.

Class 3, twelve distinct varieties, three blooms of each: First, Messrs. B. R. Cant and Sons; second, Mr. Henry Drew; third, Messrs. Alex. Dickson and Sons.

Class 4, twelve Hybrid Perpetuals or Hybrid Teas: First, Mr. A. Hartman; second, Mr. Henry Drew; third, Mr. Elisha J. Hicks with Mrs. G. Norwood.

Class 5, twelve Tea Roses: First, Messrs. D. Prior and Son; second, Messrs. Burch, Peterborough; third, Messrs. R. Harkness and Co. All three exhibited Mme. Jules Gravereaux.

Class 6, eighteen bunches of decorative Roses, distinct varieties: First, Messrs. B. R. Cant and Sons; second, Mr. Charles Turner, Slough; third, Messrs. George Jackman.

Class 7, twelve crimson and twelve white: First, Messrs. B. R. Cant and Sons with Edward Mawley and Mrs. A. Carnegie; second, Mr. Henry Drew; third, Messrs. R. Harkness and Co.

OPEN TO AMATEURS.

Class 8, twenty-four distinct varieties: First and the Windsor Challenge Cup, Mr. F. Denniston. This exhibit contained the best Rose in the show, to which the society's silver-gilt medal and award of merit were given. Oberhofgartner being the variety. Second, Mr. H. L. Wettern; third, Dr. T. E. Pallett.

Class 9, the Islet Challenge Cup, eight distinct varieties, three blooms of each: First, Mr. F. Denniston; second, Dr. Lamplough; third, Dr. T. E. Pallett.

Class 10, twelve Tea Roses, distinct: First, Mrs. Henry Balfour; second, Dr. Lamplough; third, J. B. Fortescue, Esq., Dropmore.

Class 11, eighteen blooms, distinct varieties: First, J. B. Fortescue, Esq.; second, the Rev. J. B. Shackie.

Class 12, challenge cup presented by Lady Julia Follett: First, Dr. Lamplough; second, Mrs. H. Balfour; third, J. B. Fortescue, Esq.

Class 13, twelve blooms, distinct varieties: First, Dr. Lamplough; second, Mrs. Henry Balfour; third, Mr. L. S. Pawle.

LOCAL CLASSES.—OPEN TO AMATEURS WITHIN TEN MILES OF WINDSOR.

Class 14, twenty-four blooms, distinct varieties: First, Mr. Dixon H. Davis. This exhibit contained the best Hybrid Tea in the local classes, for which the bronze medal was awarded, the variety being Mrs. Theodore Roosevelt. Second, C. Romaine, Esq.

Class 15, challenge cup presented by Lady Mary Arkwright for six blooms, distinct: First, Mr. G. C. Sawday; second, Mr. L. S. Pawle. This exhibit contained the best Hybrid Perpetual Rose in the local classes, for which the bronze medal was awarded, the variety being Hugh Dickson. Third, Mr. G. Bishop.

Class 16, challenge cup presented by Mrs. Bevil Fortescue, for eighteen Teas or Hybrid Teas, distinct varieties: First, Mr. G. C. Sawday; second, E. G. Mocatta, Esq.; third, C. Romaine, Esq.

Class 17, nine Teas: First, the Rev. J. B. Shackie; second, the Rev. F. G. Phillips; third, Mr. G. C. Sawday.

Class 18, six Hybrid Perpetuals or Hybrid Teas: First, E. G. Mocatta, Esq.; second, A. L. F. Cook, Esq.

Challenge cup presented by Lady Evelyn Mason for six Tea Roses: First, Mr. E. W. Bishop; second, the Rev. R. H. Tower; third, Mr. R. Arkwright.

Challenge cup presented by S. Osborne, Esq., for twelve blooms, distinct varieties: First, Mrs. S. Monkland; second, Mr. J. G. Carey.

Challenge cup presented by Lady Dyson for the most tastefully decorated dinner-table: First, Miss M. Fairbank; second, Mrs. Rice.

Challenge cup presented by A. L. F. Cook, Esq., for twelve varieties of Sweet Peas: First, Lord North; second, Major L. Lubbock.

Cup presented by Mrs. Fortescue for twelve varieties of Sweet Peas: First, A. L. F. Cook, Esq.; second, Mr. F. A. Bishop; third, F. Ricardo, Esq.

VEGETABLES.

Special prize offered by Messrs. J. Carter and Co.: First, Lady Barry; second, Miss Langworthy.

Special prize offered by Messrs. Sutton and Sons, Reading, for the best collection of vegetables: First, Miss Langworthy; second, Lord North; third, Viscountess de Janze.

NON-COMPETITIVE EXHIBITS.

There were several non-competitive exhibits, and these included a very fine collection of herbaceous plants from Mr. Allgrove, Langley, Bucks, among which were fine spikes of Eremuri, Delphiniums, Primula capitata, P. bulleyana, P. beesiana, P. sikkimensis, P. vittata, Lavatera Olbia, Lychnis grandiflora and Gaillardia Lady Rolleston.

Other exhibits came from Messrs. Young, Cheltenham; Mr. Elisha J. Hicks, Messrs. Jackman; Messrs. Bide, Farnham; and Mr. C. Turner, Slough.

* * * The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

Mrs. PYM'S FAMOUS PLANTS

Strong, sturdy, perfectly satisfactory plants, half-price to clear. Postage extra; 4d. for orders up to 2s.; 5d. for 3/- worth, and so on.

15 Antirrhinums 6d	6 Marguerites, single
20 Ageratum, blue 6d	white, or yellow ... 6d
20 Asters, mixed 6d	9 Musk, Scarlet 6d
3 Anemone 'Jap.', white,	20 Nemesis, or Salpiglossis 6d
red, or pink 6d	6 Pentstemons, in bud,
6 Begonias 6d	large scarlet or pink ... 6d
9 Calceolarias 6d	12 Petunias, double and
4 Campanulas, trailing ... 6d	single 6d
6 Chrysanth., early,	20 Schizanthus, or Zinnias 6d
mid., or late flowering 6d	12 Pansies, best 6d
12 Dahlias 6d	6 Salvias, scarlet or blue 6d
6 Fuchsias, choice 6d	4 Streptocarpus 6d
3 Geraniums, Scarlet	12 Tobaccos, white or mx'd. 6d
Crampel, Crimson	15 Verbenas, scarlet or
Jacoby, or Pink Ivy,	mixed 6d
large plants, in flower	15 Violas, nice young
(2/- doz.) 6d	plants, all colours ... 6d
9 Impatiens, scarlet ... 6d	100 Wallflowers, strong
4 Lobelia cardinalis ... 6d	seedlings 9d
12 Kochia 6d	9 Pentstemon, scarlet,
4 Marguerites, dbl. white 6d	Newbury Gem 6d

SPRING-SOWN.—BROCCOLI, Adams' Early White, Cattell's Eclipse, Veitch's Self-Protecting, Purple and White Sprouting. **BRUSSELS SPROUTS,** Wroxton and Sutton's Exhibition. **CABBAGE,** Daniel's Defiance, Mein's No. 1, Nonpareil. **CAULIFLOWER,** Early London and Veitch's Autumn Giant. **KALE,** Tall Curled. **LEEK,** Sutton's Prize-taker and The Lyon. **LETTUCE,** Webb's Wonderful Cabbage and Paris White Cos. **SAVOY,** Best of All, 9d. 100. **CELERY,** best red or white, strong, sturdy, transplanted, 100, 1/3.

MRS. PYM, F.R.H.S., 10, Vine House, WOODSTONE, PETERBOROUGH.

THE GARDEN.

No. 2277.—VOL. LXXIX.

JULY 10, 1915.

NOTES OF THE WEEK.

Planting Potatoes During July.—With the price of almost every necessity showing a considerable increase, it is the duty of everyone to grow as much wholesome food as possible. We therefore remind readers that sound old potatoes, planted now, will, if the weather proves all favourable, give excellent crops for lifting and eating late in the autumn. Ground that has been occupied by early Peas, Shallots and Cauldads, if forked over, might be utilised in this way. Short Horn Carrots, Turnip-rooted Beet, Turnips and winter Onions may all be sown during the next three weeks with every prospect of success. The Onions may be sown as late as the second week in August.

A Beautiful Dwarf Erigeron.—The award of merit granted by the Royal Horticultural Society a fortnight ago to *Erigeron Asa Gray* should tend to draw more attention to a useful but comparatively little-known race of hardy plants. The accompanying illustration represents one of the prettiest, and one that can be purchased at about fourpence a root, yet it is seldom seen in even good gardens. A native of the Northern United States, it has been known in this country for many years under the name of *E. glabellus*. As will be seen, it forms a neat plant about a foot in height, its lavender purple flowers, each about an inch in diameter, being produced in abundance during June and early July. It is one of the easiest plants to grow and will thrive in almost any soil.

Pink Roses and *Nepeta Mussinii*.—A few days ago, when visiting an old-world garden in the South of England, we found a long border planted with the ordinary Pink Monthly or China Rose and carpeted with *Nepeta Mussinii*. The effect was particularly pleasing and will not readily be forgotten. The Roses were like fountains of pink rising out of a carpet of grey and pale blue, created by the foliage and flowers of the *Nepeta*. We advise readers who appreciate harmonies in the garden to note this in their diaries, so that when the planting season comes it may be carried into effect.

The Sweet Pea Show.—We would remind readers that the annual show of the National Sweet Pea Society is to be held in the Royal Horticultural Hall, Vincent Square, on Tuesday next, the 13th inst. The following day members will visit the

Society's trials at Boyton Hall, Roxwell, Chelmsford, and later in the day the seed-growing establishments of Messrs. Dobbie and Co. and Messrs. Alex. Dickson and Sons, Limited, Mark's Tey, Essex. Full particulars of the exhibition can be obtained from the secretary, Mr. H. D. Tigwell, Greenford, Middlesex.

The Windsor Rose Show.—In the report of this show, which appeared in our issue for last week, the first prize in Class 6 for decorative Roses was credited to Messrs. B. R. Cant and Sons. It was won by Messrs. Frank

charming flowers should secure a copy of No. 4 of the *Kew Bulletin* for 1915. This contains a long and comprehensive article entitled "Some Additional Species of *Meconopsis*," by Sir David Prain, Director of the Royal Gardens, Kew. A large number of species are fully described, and the article will certainly prove of considerable value for reference. Copies of the bulletin may be obtained through any bookseller, price 6d.

King Pink.—Those who appreciate refinement and good habit in garden Pinks will extend to that named King Pink a hearty welcome. It is, we

believe, one of Mr. James Douglas' specialities, and is at the present time one of the most charming plants in the garden. The flowers, which are of medium size and semi-double, are borne on stiff, branching stems, which do not require staking. The colour is deep yet soft salmon red with a crimson zone surrounding the stigma, while in form the blossoms are superb. It is a Pink worthy of a place in every garden, on account of its unique colour and good habit.

About Cornflowers.—With most flowers our seedsmen have brought about improvements, giving us varieties with better-coloured blooms and plants of more robust habit. In the case of the Cornflower, however, the opposite has been the result. Instead of the old-fashioned deep blue flowered plant that used to do such excellent duty, we now find, even in humble cottage gardens, it is being ousted by varieties that have blooms of dull claret or dirty grey-white hues. We make no apology for putting forward a plea for the old-fashioned blue flower of our cornfields, which, in our opinion, is better than any of the modern garden varieties.

Rose American Pillar in Wet Weather.—The high opinion that we have had of this beautiful

Rambler Rose ever since its introduction has been further enhanced since Wednesday, June 30, when our garden was swept by a storm of almost tropical intensity. The extraordinary rain and wind created havoc among the Roses, and all, with the exception of American Pillar, were ruined. This, as most of our readers will know, has large clusters of deep rose pink, single flowers, yet these came through the trial practically unscathed. It is true the blossoms were in a comparatively young state, but those of other varieties that were equally young looked as though they had been scalded.



ERIGERON GLABELLUS, A HARDY NORTH AMERICAN PLANT WITH LAVENDER PURPLE FLOWERS.

Cant and Co., Braiswick Rose Gardens, Colchester.

Virginian Stock for the Autumn.—Any bare places in beds or borders should be sown thinly at once with Virginian Stock. This little annual grows and flowers very quickly, and the result of sowing now would be sheets of flower during September and well into October. The seed can be purchased very cheaply in separate or mixed colours.

Information about *Meconopsis*.—All who take more than a passing interest in this genus of

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Roses Mme. Alfred Carrière and Carmine Pillar.—These two Roses, in juxtaposition in the charming gardens of Mr. Robinson-Douglas at Orchardton, Castle Douglas, Kirkcudbrightshire, have been affording a pleasure-giving picture on a wall this season. Mme. Alfred Carrière is one of the best of white wall, pillar or trellis Roses, and it blooms with great freedom almost everywhere. At Orchardton it covers a good breadth of wall, and close beside it Carmine Pillar was giving a profusion of its brilliant blooms. The two formed a beautiful contrast—not too harsh, yet quite pronounced. They looked well against the grey walls, and aided greatly to complete the general delights of the beautiful garden in which they grow.—S. ARNOTT.

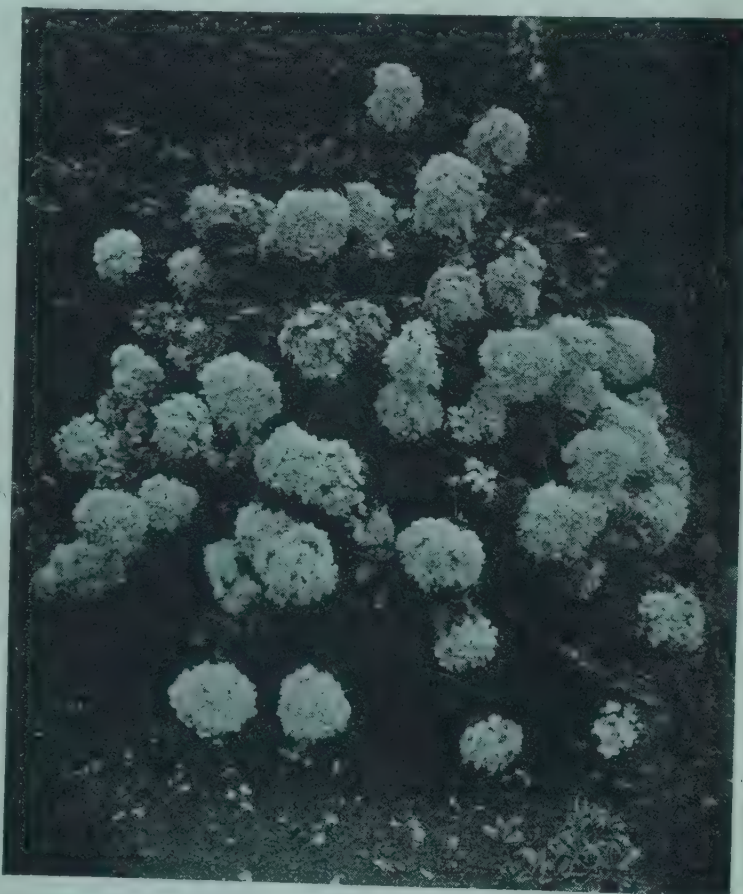
The Viburnums, or Guelder Roses. These now rank among the most desirable flowering shrubs, and no collection, however small, should be formed without including some of the best and most distinct. The latest introductions from China are in most cases worthy of inclusion. There are very many of these, but in my opinion two of the very best, though not new, are *V. macrocephalum* and *V. plicatum*. This year these have been very beautiful. I am sending a photograph of *V. macrocephalum*, which I hope you may be able to reproduce. The charm of these plants is in the length of time they are attractive. Even before the trusses are fully expanded, the plants are a conspicuous object in the shrubbery, and almost any kind of soil will suit them.—E. BECKETT, V.M.H., Aldenham House Gardens, Elstree.

"Improved" Wallflowers.—In the latter portion of his article, which appears on page 328 of July 3 issue, W. Linders Lea takes exception to my remarks that the Wallflower has been almost spoiled by so-called improvements. This, of course, he is quite at liberty to do, but in the succeeding paragraph he unwittingly supports my contention. Flowers that "appear washed-out" and have to be associated with others to make them tolerable we can surely do without. Does your correspondent contend that the dirty-looking cream and magenta purple Wallflowers are as beautiful as the old blood red, bright yellow and brown varieties? In my opinion they are not, and for that reason I contend they are not improvements, but retrogressions.—A. B. ESSEX.

Reseda alba Self Sown.—Last autumn I drew attention in THE GARDEN to the value of the white Mignonette as a decorative plant for the open border, and while I commended it to the attention of others, I suggested that there might be a difficulty in obtaining seed, as I had never seen it listed. An Indian correspondent, thinking that I might be anticipating difficulty in obtaining seed myself, kindly sent me a packet from one of the Government Public Gardens of which he has charge. In addition to this supply I, however, managed to save seed from our own plants, and so had no difficulty in raising a good

stock of plants this season. Judge of my surprise, however, when recently inspecting a bed which had been dug and sown with *Platystemon californicus*, I found it studded with seedlings of white Mignonette. It was the bed where this plant was grown last year.—CHARLES COMFORT, Midlothian, N.B.

Spring Flowers in Association.—I was very pleased to notice in THE GARDEN for June 12, page 287, the note on White Swan Tulips and Maggie Mott Violas as a pleasing combination for a spring bed. A large bed planted here with blue Hyacinths, White Swan Tulips and Maggie Mott Violas, the whole edged with blue Aubrietia and Muscari Heavenly Blue and *M. plumosum*, has been very effective for some time and much admired. By adding a few plants of *Antirrhinum Nelrose*, now that the Tulips are over, the bed looks like lasting bright for some time. In the



A BEAUTIFUL GUELDER ROSE, *VIBURNUM MACROCEPHALUM*, IN THE GARDENS OF ALDENHAM HOUSE.

rockery, or, rather, stony border, *Phlox canadensis* and the alpine Wallflowers have been remarkably bright this season. *Cheiranthus alpinus major* and *C. Dibleii* have been extra good. *Androsace Chumbyii*, *Morisia hypogaea* and *Houstonia cærulea*, although tiny plants, have been interesting. *Cytisus incarnatus*, planted three years ago in very heavy soil, has produced a wealth of bloom this season. Indoors, *Calceolaria Clibranii*, *Clarkia Sutton's Firefly* and *Antirrhinum Nelrose* have been very useful, needing but little warmth and causing very little labour to bring them to perfection.—A. S. ASHWELL, Rutland.

Escallonia langleyensis.—I was pleased to see the appreciative note and illustration of this delightful shrub in THE GARDEN for June 26. It is indeed, as stated, a most desirable subject for clothing a wall or fence. In proof of this I may mention that in my garden at Wimbledon is a black tarred fence 6 feet in height, such as

are so often met with in suburban districts. This fence faces south-east, and is partially clothed with this *Escallonia*, whose beauty during the month of June is so pronounced as to make one wish that it occupied the entire fence. The main branches are secured to the fence, and the minor ones allowed to dispose themselves at will. The result is a veritable cascade of gracefully disposed, slender shoots, and when these are wreathed with bright carmine rosé coloured blossoms its beauty may well be imagined. In this neighbourhood the soil is very stiff and cold, and this is perhaps the reason why my specimen loses practically all its leaves in the winter. It is not in the least affected thereby, and with the return of spring it is quickly covered with new leaves. I find that cuttings taken during the summer, inserted in a shady spot and covered with a hand-light, soon root. This *Escallonia* was given an award of merit in 1897, but it well deserves the higher honour of a first-class certificate. In the list of certificated plants issued by the Royal Horticultural Society, *E. philippiana*, one of its parents, is referred to as *E. virgata*.—H. P.

Gentiana acaulis.—Mr. J. Gardner, page 281, June 5, in writing of this plant says that "light, sandy soil is unsuitable," which conclusion is at wide variance with the fact. In some of the Derbyshire nurseries it was in the past grown in quantity—and may be so cultivated in these to-day—in soil of the lightest description, soil, indeed, which would be considered ideal for the hardy Heaths. At the present time I have it growing freely and well in a similar soil; while for twenty-five or more years in the Hampton district of Middlesex the plant was a complete success in growth, increasing and flowering in a soil not only exceedingly light, but which, resting on a subsoil of gravel and sand many feet deep, always became dust dry during the summer months. At the Royal Horticultural Society's Gardens, Wisley, the plant develops into luxuriant tufts in a soil peculiarly light and very sandy. Nor can one forget one's early experiences of forty odd years ago at Tooting, where, in a soil of exceptional lightness, of a very sandy nature, and resting on a deep bed of gravel and sand, this *Gentian* was everywhere a success, and most pro-

digal of flowering as an edging to many of the hardy plant beds and walks in various parts of the nursery. For the latter no more preparation than would have been made for the laying of a Box edging was indulged in. In short, I have never had the least difficulty in getting the plant to grow and flower well in many classes of light soils; hence it is not correct to say that these are "unsuitable." Many classes of loamy soils suit it equally well, the plant being the least happy—also shy of flowering—in heavy clay soils. Even in some of these it will make a good growth, though it is by no means reliable in such generally. I consider September and October the best season for planting it.—E. H. JENKINS.

Apple Cox's Orange Pippin Grafted on Irish Peach.—With pleasure I reply to the queries of "Observer," page 312, issue June 26. 1. Irish Peach was of no market value. 2. Ten trees were grafted. 3. The trees of Irish Peach were cut

down to within 2 feet of the ground. No extra wood of Irish Peach was left beyond the branches on which the scions of Cox's Orange Pippin were put. 4. The Irish Peach trees were about fifteen years old. 5. To the vigorous, clean growth which this variety (Irish Peach) usually has, I, too, am convinced (in spite of what scientists tell us) that canker is not caused by any external agents, any more than Larch canker is caused by the same reason. Unhealthy root action is the main cause.—E. MOLYNEUX.

Large Vegetables.—Will you please permit one more letter on the subject of small vegetables for table? I think the mammoth vegetables only exist in the seedmen's catalogues. They possibly have to exaggerate slightly to attract, and there are always those to whom the biggest of anything is everything. Most gardeners can grow their vegetables to suit the wishes of the particular family they provide for. A little less manure would doubtless reduce the size enough to satisfy "Anne Amateur" or "A. La T.," and if one Cauliflower does outgrow the others, it is delicious if torn to pieces when nearly cooked and served *gratinée*. As a gardener of some years' experience, may I say I consider the system of buying a collection of vegetable seeds an extravagant one. There is sure to be too much of some and not enough of other varieties, and some not needed at all, and so the collection needs much supplementing, thus bringing up the cost.—GRACE GARDENER.

—Would it not be well to call a compromise on the question of large *versus* small vegetables? When I was a boy at school, I never cared very particularly what the Cabbage was, whether Drumhead or otherwise. Peas were just Peas, and I did not give points for flavour so long as I could get enough. Even now I would not like to be called dainty, but advancing years have brought a more discerning palate, and I enjoy a Custard Marrow more than I do a slice out of one of the "whoppers" for which there is great competition at village shows. But I am not narrow-minded, and it does not follow at all that because I, in my small way, do not care for big, flavourless things, they have not their uses; of course they have. Those who have the management of large institutions have to purchase cheaply and in quantity, and when I become the inmate of a certain large institution which I have in my mind, I shall, no doubt, have to be content to devour four-pound Onions and Broad Beans from pods 9 inches long; but until then I hope I may be forgiven for preferring quality to quantity.—F. HERBERT CHAPMAN.

How to Make Perfumes.—In THE GARDEN for June 19, page 300, "M. H." writes enquiring how to make ointments, soap and perfumes. I am not a member of the Pharmaceutical Society, and regret I cannot help "M. H." with information on the making of ointments and soap, but the following is a recipe given me years ago by a Scotch friend for the making of perfumes, which, although I have not actually tried it myself, I know is used largely in Italy and in other places abroad, as well as by people in England, for the making of perfumes: "Get a large earthenware dish (a small 'panchon' will do very well). Into this put the fresh petals of the flowers you wish to get the perfume from. They may be Roses, Stocks, or any and every other sweet-smelling flower you like to put in, provided you have a good number of them. But keep each sort of petal separate, and do different flowers on different

days. The petals must not get dried up at all, and should only be gathered on the morning required. As soon as the petals are in the receptacle, melt some beeswax (or even lard will do) in a saucepan. You should melt a good deal if there are many petals, so as to have plenty for the purpose. As soon as it is completely melted, take it off the hob or fire and gently pour it into the receptacle holding the petals. Get someone to stir them in the wax while you pour it on, and when it is all poured in and thoroughly mixed with the petals, 'clean up' the sides of the 'panchon' and let all the wax settle to the bottom and get cold." The perfume is now in the fat, and the problem is to get it in a convenient form. The recipe continues: "Allow some days to elapse, and then pour on to the fatty residue alcohol or spirit unadulterated with 'methyl' alcohol. Stir this spirit in as well as you can and pour it off later. It will then contain the perfume." I am afraid this recipe is somewhat vague, for it gives no idea of how much wax should be used to a definite weight of petals or how long the wax should remain in contact with the petals, or, again, how long the spirit should be left in the receptacle. Perhaps other readers will give more definite data, though it is unlikely that "M. H." will be able to get very full information, as I believe the secrets of making several ancient perfumes are carefully guarded by those who possess them. With regard to the spirit used for extracting the perfume from the fat or wax, it is of the utmost importance that this should be alcohol or spirit unadulterated with methyl. "M. H." will, I fear, have some difficulty to get this pure spirit, as chemists are apt to make difficulties about selling it. She should, of course, explain what she wants it for, or she is very likely not to get it at all. Reason tells us at once, however, that it is useless to use methylated spirit for the purpose, because of its strong smell. I can only offer one suggestion to "M. H." about distilling the perfume to concentrate it, and I cannot say whether this will act, for I am not a whisky maker or distiller! However, I should get a small glass retort with a long neck, and lead the neck into a flask surrounded by cold water. The retort itself would contain the diluted perfume, and would be immersed in a beaker of water, which can be gradually brought to the boil by a Bunsen Burner. The first part of the material which comes over would be thrown away, the second part kept as the concentrated spirit or perfume, and the third part wasted. It might be necessary to distil three or four times before really concentrated perfume was obtained. If the spirit or perfume distils too quickly, the temperature must be reduced, and the condenser must be kept as cold as possible (preferably by means of running water). I hope these few notes will be of some use to "M. H." Lastly, I may remark that she should not try "blending" the perfumes without much thought and some small experiments.—E. T. ELLIS, *Weetwood, Ecclesall, Sheffield.*

FORTHCOMING EVENTS.

July 10.—Red Cross Rose Show at Cranford, Leamington Spa, 12 noon to 7 p.m.
July 13.—National Sweet Pea Society's Exhibition, Royal Horticultural Hall, Vincent Square, Westminster, 1 p.m. to 6 p.m.
July 16.—The North Lonsdale Rose Society's Show at Ulverston (two days).

ALPINES AS BORDER PLANTS IN SCOTLAND.

SOME years ago we planted a long, narrow border here with Roses, but for some reason these never succeeded, and two years ago they were removed. There was considerable discussion as to what should be put in their place. Eventually it was decided to have a dwarf alpine border, but without the use of stones. This has been a great success, and every visitor has admired it, although when first planted one could not help noticing that various people considered we were only working for disappointment.

The border runs east and west, is about six feet wide and 35 yards in length. A large Apple tree occupies the centre and somewhat interferes with the carrying out of our colour plan, as so many plants would fail to thrive in this position. However, we planted a large mass of *Arabis albidiflora* pleno under the tree, and it has been a wonderful success. The original idea was to plant in various sized clumps or patches, and these in irregular shapes, and this has been rigidly adhered to. From early April until nearly the end of June it is the most interesting border in the garden, and requires but little attention except to pull out the few weeds that appear and to trim back some of the plants that encroach on their neighbours.

One or two kinds have failed us, or, rather, we find them unsuitable for this method of culture; but by another year these will be removed and more suitable subjects established. The unsuitable plants are *Dryas octopetala*, *Draba aizoides*, *Arenaria cæspitosa aurea* and *Gentiana verna*.

That lovely blue alpine *Lithospermum prostratum* was finer last year than I have ever seen it anywhere; but, unfortunately, it suffered dreadfully in the winter, and is now rather shabby. Very fine are *Phlox subulata* and its varieties *G. F. Wilson* and *Perfection*, and the same may be said of *Aubrietias* and *Saxifrages*. Both named varieties and seedlings are employed, and, if anything, the seedlings are the more interesting. Of the named *Aubrietias*, *Moerheimi* is probably the best, being compact and very floriferous, while the bright pink flowers are extremely pleasing. *Arenaria montana*, although inclined to overrun its neighbours, is very beautiful. *Alyssum saxatile* and *A. s. variegata* are bright and telling, but are used somewhat sparingly, otherwise they would overpower quieter shades. A few clumps of *Helianthemum* help to prolong the display, while at the beginning of the season several fine clumps of *Polyanthus Munstead Strain* (white and yellow shades), give a lively and pleasing tone to the whole. These latter were put in as stop-gaps at first, but are so beautiful that they are to become permanent features, although the sites will be changed, fresh seedlings having been raised for the purpose.

Other plants used successfully are *Candytuft* *Little Gem*, *Gentiana acaulis* (has not flowered much yet), *Dianthus integer*, *D. arenarius*, *D. neglectus*, *Arabis aubrietoides* and *D. albidiflora* variegata. Many of the plants were raised from seeds, and if good strains of the various kinds are obtained, the results are excellent. Others can be raised from cuttings, so that this form of gardening can be indulged in at very moderate cost.

C. BLAIR.

Preston House Gardens, Linlithgow.

NEW ROSES AT THE "NATIONAL" SHOW.

AS usual, the greatest interest to visitors to the National Rose Society's metropolitan exhibition, held in London last week, and a report of which appears on another page, were the new seedling Roses. About twenty were staged for awards, the judges finally granting gold medals to two and certificates of merit to eleven. Descriptions of those that received recognition are given. Whether all will fulfil the expectations of the adjudicators remains to be seen.

Paul's Scarlet Climber.—This is a large-flowered Hybrid Wichuraiana of wonderful scarlet colour, the shape and size of the flowers resembling Grüss an Teplitz. The colour, however, is a much brighter scarlet-red, and the flowers are slightly fragrant. The foliage is leathery and deep green. Undoubtedly this magnificent Rambler has a very brilliant future before it. (See illustration.) Raised and shown by Messrs. William Paul and Son, Waltham Cross. Gold medal.

Lemon Pillar.—A large-flowered Noisette Rose of vigorous pillar habit, and the result of a cross between Maréchal Niel and Frau Karl Druschki. The blooms are very full and creamy white in colour, emitting a delightful fragrance. In appearance they resemble those of Pernet-Ducher's Entente Cordiale, but they are much larger. This should prove a very valuable large-flowered pillar Rose. (See illustration, page 339.) Raised and shown by Messrs. George Paul and Son, Cheshunt. Gold medal.

Each of the following received a certificate of merit:

Cherry Page.—This is a Hybrid Tea that should prove an exceedingly useful decorative Rose. It has a vigorous, branching habit, blooms freely, and continues its display over a long period. The colour is quite unique, being best described as rich glowing cerise, shaded with golden yellow. In the bud and half open state it is very attractive. Raised and shown by Mr. W. Easlea, Danecroft Rosery, Eastwood, Essex.

Cupid.—A Hybrid Tea pillar Rose with very large single flowers borne in clusters of six to ten. The colour is soft shell pink, the buds flecked with flame. Habit very robust, and foliage large and leathery. (See illustration on page 330 of last week's issue.) Raised and shown by Messrs. B. R. Cant and Sons, Old Rose Gardens, Colchester.

Flame of Fire.—This is a beautiful seedling Hybrid Tea of rather small size, and specially recommended for bedding and garden purposes. The blooms are of long, pointed shape and suitable for button-holes. Colour deep orange yellow. Habit moderately vigorous and branching, and stems very spiny. Slightly fragrant. Raised and shown by Messrs. S. McGredy and Son, Portadown, Ireland.

Florence Spaul.—A large-flowered seedling Hybrid Tea of considerable substance. The

flowers are of Lady Alice Stanley shape, with some of the glow of that variety in the centre. The general colour, however, is a deep rich pink, and the blooms are very fragrant. Raised and shown by Messrs. B. R. Cant and Sons.

Johanna Bridge.—In general appearance this closely resembles Margaret Molyneux, and the flowers are of the same semi-double character. They are very beautiful in the bud state, where the yellow, orange and pink tint shows to perfection. The habit is vigorous and branching. Raised

the edges. The blooms are produced in moderate-sized clusters, and emit a slight fragrance. Habit branching. Raised and shown by the Rev. J. H. Pemberton.

Queen of Fragrance.—As its name indicates, this is a particularly fragrant Rose, and one specially suitable for the garden. When shown at Holland House last year, it won the cup offered by Messrs. Clay and Son for the most fragrant new Rose not then in commerce. The flowers are large and soft shell pink in colour, and it is stated to be a good autumn-flowering variety. (See illustration on page 340.) Raised and shown by Messrs. William Paul and Son, Waltham Cross.

Sallie.—A large-flowered Hybrid Tea of the Pharisæa class, but with rather more orange blush suffused through the petals. Habit branching and vigorous, with fine leathery foliage. Slightly Tea-scented. Raised and shown by Messrs. B. R. Cant and Sons.

Titania.—A China Tea seedling of dwarf, branching habit, the blooms being of medium size, such as we find in *Crépuscule*. Colour a mixture of coppery crimson, salmon red and yellow. In the fully open state the petals are prettily reflexed, and the blooms possess the Tea Rose fragrance. It should prove a good bedding variety, and also useful for cutting. Shown by Messrs. William Paul and Son, Waltham Cross.



THE GOLD MEDAL ROSE SCARLET CLIMBER, SHOWN BY
MESSRS. WILLIAM PAUL AND SON LAST WEEK.

and shown by Mr. E. J. Hicks, Twyford, Berks.

Lady Bowater.—This is a large and beautifully shaped exhibition and possibly garden Rose. As will be seen by the illustration on page 342, it is of conical form, with great depth and substance of petal. The colour is creamy white often flushed with apricot pink. The bush has a vigorous and branching habit, and this new-comer should prove a valuable addition to the large Roses of this shape. Its parents are Frau Karl Druschki and Pharisæa. Raised and shown by Mr. W. Easlea.

Prince Charming.—This is a very free and branching Hybrid Tea specially suited for button-holes. The flowers are small, long and pointed, the colour being a sort of bright orange scarlet. Foliage very glossy and green, the young leaves being deep red. Raised and shown by Messrs. Hugh Dickson, Limited, Belfast.

Queen Alexandra.—A large-flowered single, perpetual-flowering Hybrid Tea of bushy habit. The petals are large and shell-like, pale lemon in colour, with a faint suffused blush at

month of April, and were old, rather ill-looking plants. Now we have twenty-five good-sized pieces, some being as large as my hand, and flowering as well and richly as in the high Alps of the Valais. Last year we could collect very good seeds from them, and now I see that several of them are well covered with seeds. They were, last week, covered with flowers, quite as well and as beautiful as in the highest Alps.

That *tourbière* is for me the best solatium to the anguish of the war. I have there a very nice lot of the best of alpine. You will understand it if I say that we had there in April in full flower, and as brilliant as in the Alps, the following: *Gentiana verna*, *G. angulosa*, *G. verna alba*, *G. v. caerulea*, *G. v. rosea*, *G. v. atrocærulea*, *G. bavarica* (quite covered with beautiful flowers as numerous as in the highest Alps—last year it flowered again in autumn), *G. angustifolia*, and the pure white form of *G. acaulis*. We had, too, the very rare *G. Rostani*, the slender *G. brachyphylla*, *Primula Allionii* and *Ranunculus glacialis*. Now we have beautiful tufts of the deep blue *Gentiana utriculosa*, a plant which is flowering

MORAINÉ PLANTS AT FLORAIRE, GENEVA.

WE have now in our *tourbière*—what you probably would call a moraine—a rich and very healthy

colony of *Eritrichium nanum*. They were planted there last spring in the

for the first time with me, and *Arnica montana*, a very common plant in the Alps, but rarely succeeding in our Swiss gardens.

In that *tourbière* I have now the whole collection of the *Pinguiculas*—*alpina*, *longiflora* (a rare plant from the Maritime Alps), *leptoceras*, *Reuteri* (a pink variety found in our Jura by the Swiss botanist Reuter), *vulgaris* and *grandiflora*. They are all in flower now, and are exceptionally beautiful.

Some of the new *Primulas* from Professor Balfour of Edinburgh are very healthy in the same position, and particularly the new Chinese ones. Seedlings of *Gentiana tenella* and *G. nivalis* are coming up well; also lots of Orchids like the *Nigritellas*, *Calypso borealis*, *Orchis laxiflora*, *Herminium monorchis* and *Liparis Loeselii*. *Stachys corsica*, *Anagallis tenella*, *Lobelia linnæoides* and *Houstonias* are weeds, although they are succeeding with us for the first time.

Some delicate Ferns, such as *Allosorus crispus*, *Asplenium foesianum*, *A. germanicum* and *A. septentrionale*, are beautiful. But the pearl is certainly that exquisite Fern, *Asplenium fissum*, which we found last year on the north side of the Col de Tende. For more than twenty-five years I tried unsuccessfully to get the true *A. fissum*. Twice I was at the classical station and could not find it.

Last year I came with my head gardener to a little valley bearing a different name, and there, facing the burning sun, between the chalk-stones of a very hard *pierrier*, the finest of the Ferns, the queen of them, was lying and flourishing in numerous masses. Now it seems to be very happy here with us, thriving as well in the *tourbière* as in the wall and in the pots. It is certainly the most beautiful of all the Ferns.

This *tourbière*, from which we have obtained such good results, is a new creation. We made several attempts, till we finally came to the conclusion that a large number of the choicest of the plants must be watered from below. For many years I cultivated the most delicate in *Sphagnum*, and had nice results. But in pans, as we grew them, it was rather expensive and hard work. So three years ago I tried to have a bed which was watered from below. The result was exceedingly good, but not quite convincing. The bed was not quite watertight. So I made another bed 14 metres long and 1½ metres wide, with a depth of 1 metre. The third part of it was covered with rolled stones, and these were covered with a bed of Moss or *Sphagnum*. Then on this we put the soil, different in character, according to the treatment required by the respective plants. The results were immediately surprising for me. Now, I consider my *tourbière* bed as the first thing in my garden, and this is the opinion of everyone who knows anything of cultivation and botany.

Florairé, Geneva.

H. CORREVON.

SOME HINTS ON WATERING.

THE operation of watering presents many problems to gardeners, so perhaps a little advice based on practical knowledge will be useful to readers. Watering is really divided into several headings, such as watering at the roots, "damping over" to freshen or clean the foliage only, and feeding with liquid artificial or animal fertiliser. In the present article I speak only of outdoor watering in these branches, for annuals, perennials and bedding plants. I hope at some future date to deal with the watering of vegetables.

There is a certain important preparation for watering which should always be made, if possible, and this is the hoeing and stirring of the surface soil. If this is not done, the soil is apt to cake,

The best of all watering is, of course, watering at the roots. Many times I have denounced surface waterings, sprinklings and "dampings over" to be no good at all except for giving an external appearance of freshness to the foliage. Damping over is done by "waving a can of water with a fine rose lightly about over the foliage of the plants in the borders"! It is useful at its proper times, i.e., when the roots are sufficiently wet from recent rains and only the foliage wants freshening up, but it is practically no good as summer watering. As said previously, root watering is the essential, but this is, of course, modified as necessity arises by spraying the foliage of the plants as well.

Several problems arise on this watering. The question of the quantity to give, the sorts of roses to use, and the question of when to apply all claim our attention and study. "At what time of the day is it most suitable to give water?" This question is still capable of being strongly debated, and as it is not my desire to start a controversial correspondence in THE GARDEN, I will not be over-dogmatic on the subject.

Readers will, of course, well know that though the sun rises very early in the summer months, it does not get very much power (except in the very sunny South) before eight o'clock, or sometimes nine o'clock, in the morning. That suggests to us the probable advantage of watering in the very early morning, and my experiments have shown me that the advantage arising out of early morning watering is very great indeed. However, it is not always easy or even advisable. After a roasting hot day one's annuals, especially in the early stage, most certainly require water, and in this case it is certainly better to give a thorough soaking at night.

The question of roses to use on the can presents a problem to many amateurs. For my own part I have roses for different purposes. Strong established plants can well do with the moderately heavy shower of rain from a coarse rose; but dwarf and tender plants would be easily damaged by such a thing, and the soil (especially if they are planted on the now old-fashioned raised borders or beds) would probably be washed away. A large "spray" rose is essential for the quick watering of large beds and borders of small plants, but this is not much good for penetrating to the roots of perennials in herbaceous borders. Readers should use discretion when choosing cans and roses.

In really dry weather, big clumps of perennials, Lupines, Delphiniums

and many more must be watered. I find in a thickly planted border it is much better to carefully pour the water straight into the clumps with care from the neck of the can in such cases.

And now we come to the quantity of water to give, purposely left to the last of these questions on watering, as it is vitally important. The advice may be summed up in two words: "Water thoroughly." The intentions of many readers



THE NEW ROSE LEMON PILLAR, SHOWN BY MESSRS. GEORGE PAUL AND SON AT THE NATIONAL ROSE SHOW.

(See page 338.)

and in that case most of the water runs off (especially if applied with a coarse-rosed can). It may be urged that it is not possible to do this on borders filled with bedding plants or in which annuals have been planted out. And there is something in this also. But the difficulty is got over by pricking up the ground with a small fork (this can always be done unless the bedding plants and annuals are set too thickly).

who wield the water-can and the hose-pipe are good, but they do not all know what thoroughness means. In watering, however, do not remain spraying a single plant with your rose for several minutes, or a pool will result (in a soil of our description—coal measures). Spray each plant for a short time, and then go on to the other parts of the border, returning after a time to the plants watered earlier and water again, for the first lot of water will have soaked in. In really dry times it may be necessary to return two or three times to ensure the water reaching the roots. A mere surface watering is no good in dry weather. Water thoroughly if at all.

Feeding Plants.—A word must be said of summer feeding, which comes, of course, into the category of watering. Liquid, if given at all, should be given weak and frequently rather than strong and very seldom. Liquid animal manure should be clear and almost like weak tea. It should be kept off the plants themselves, and given only after watering in the strong growing season. Everyone knows how to make it, so I do not give details of it here. But those who do not for various reasons like to have a tub of smelling liquid manure should obtain one of the many excellent proprietary fertilisers and use it in water instead.

Experiments with simple chemicals, such as nitrate of soda, sulphate of ammonia, sulphate of potash, calcium cyanamide, nitrate of potash, nitrate of ammonia, phosphate of ammonia, superphosphate of lime and many another manure, are to be commended, as these find out the likes and dislikes of plants. Such chemicals should be handled carefully and given in strict moderation (never over an ounce to the gallon, and sometimes less). The effects of these should be carefully noted, and clear water given between the applications of the chemical. This comes under the experimental side of summer feeding, and I am sure the Editor of *THE GARDEN* would be only too glad to receive and publish the results of any such interesting experiments.

Those with comparatively small gardens can carry out such experiments even better than those who have more space at their disposal. *Weetwood, Ecclesall, Sheffield.* E. T. ELLIS.

WAHLENBERGIA VINCEFLORA.

This is one of the best blue-flowered perennials now in bloom. Growing, when established, 18 inches or so high and flowering for many weeks on end, it is one of the most profuse flowering of herbaceous plants. It belongs to the Bellflower family, the intensely coloured blossoms being produced on thin, wiry stalks. It is well suited to the rock garden, and likes deep, warm soil and a sunny situation.

OURISIA COCCINEA.

SOME PROBLEMS OF CULTIVATION

THE Chilean *Ourisia coccinea* presents an almost insoluble problem in the way of cultivation in numerous gardens. It is virtually impossible to persuade it to flower in many places; in others it gives merely a spike or two on even a large plant; and, worst of all, there are many, many gardens in which it cannot even be established. What is the cause of this? Is it possible

endeavours to come to a satisfactory conclusion regarding the causes. In one garden, in particular, there were for years spreading masses of *O. coccinea* in a border in semi-shade, and growing in light loam, rather poor and dry. Here these did exceedingly well, but pieces removed to apparently more favourable conditions, to a rather moist, peaty soil, failed to succeed and dwindled away. In other gardens I have known apparently healthy plants which would survive for a year or two, would give a few flowers, and eventually disappear. In others, again, after becoming established, hardly a flower would repay the troubles of the cultivator. Of course, there are some who tell us—and that quite truly—that they have no difficulty with the *Ourisia*, and I know plants and masses of plants which give the keenest delight to a flower-lover as he looks upon these wrinkled leaves surmounted by many spikes bearing the most brilliant scarlet flowers.

A moist, peaty soil is recommended by many. Some suggest a heavy loam. Some, again, say, "give it half shade and moisture." Others recommend a gritty peat; and others, again, loam, leaf-soil and sand. Yet the fact remains, as has been remarked by an able cultivator, that it is "of rather uncertain habit in cultivation," and he who could supply us with the "royal road" to success so many ardently desire would indeed confer a boon upon lovers of such a charming plant as this. Mr. Reginald Farrer, in "*My Rock Garden*," tells us in an amusing way of his *Ourisia* experiences. I cannot quote this at length, but the substance of the tale is that, after trying all manner of recipes and making all kinds of preparations, a cheap lot of *Ourisia* planted in a rough fashion became quite at home and ramped about everywhere. He adds that it appears to be most successful in shady places. And this high up in Yorkshire in a naturally cool atmosphere! My own successes—and these have not been many—have been in cool, rather damp soil of a light nature and away from the sun.

Dumfries.

S. ARNOTT.



ROSE QUEEN OF FRAGRANCE, SHOWN BY MESSRS. WILLIAM PAUL IN LONDON LAST WEEK. IT RECEIVED A CERTIFICATE OF MERIT. (See page 338.)

to arrive at a sound conclusion which will enable us to find a way out of the troubles and to induce this brilliant flower to favour us with an abundance of its spikes of scarlet flowers? I fear not, but others with long experience may be able to give us some hints to turn to advantage.

One of the puzzling things which confront us in our endeavour to cultivate the *Ourisia* is the fact that in certain situations it may succeed in a garden, but that if removed from these precise places to other positions in the same garden it will pine away and finally vanish. More than a few instances of this have come under my notice, and I confess that I have been baffled in my

the stock of any of the occupants of the rockery, a frame should be set apart for that purpose. If cuttings are to be taken, the frame should be made up almost entirely of sand. Many of the *Phloxes*, *Lithospermums*, *Pinks* and *Saxifrages* will root freely, and in this connection it is not at all necessary to make the cuttings as one would those of a *Geranium*. Simply pull them off and put them in as they are, and the chances are they will root much better. Others, again, must be increased by division. These had better be potted into small pots and wintered in what should be the alpine frame.

INCREASING ALPINES.

WHERE it is intended to increase

JAPANESE IRISES.

(I. KÆMPFERI.)

WHILE the genus *Iris* is rich in beauty and variety, and affords material for either the amateur, professional, or enthusiast-specialist gardener to revel in for nearly six months of the year, the section above named stands not only pre-eminent of its race, but equally so among moisture-loving flowering plants at any season of the year. In a word, the Japanese *Iris* is unique, whether viewed from the standpoint

of the plant's requirements was constant partial submersion in water, the heavy toll paid for so doing quickly telling the intelligent cultivator it was wrong. Twenty-five or more years ago, when many were urging the water-side as the only possible way of growing these *Irises*, I had them in considerable luxuriance in richly manured field soil, which in summer-time became dust dry many inches deep, a near neighbour growing them equally well in old potting soil in a worked-out gravel pit; hence it will be seen that the amateur or artisan with a solitary bed may score a success equally with the millionaire who appears to possess conditions more approaching the ideal. Professional cultivators, too, for some years past

success is to be ensured, is raising the soil of the water-side planting area a foot or more above water-level, at which height the roots will descend and get all the moisture the plant requires. It is a far safer plan than the risky one of submerging, or even of having the roots continually in wet ground. These, then, are the things that matter in their cultivation; at once those to adopt and those to avoid.

The amateur to whom only a solitary bed is perhaps possible should arrange the surface of the bed slightly below the surrounding level, so that during growth and approaching the flowering period an occasional soaking of water may be applied with advantage. An item worthy



A BEAUTIFUL GROUPING OF JAPANESE IRISES AND GUNNERAS. THE IRISES CAN ALSO BE GROWN IN THE BORDER.

of the splendour of the floral display and the living pictures the flowers create in garden scenery, or because of hardiness, amenability to the British climate, or because of the several ways which they may be employed with good results in gardens regardless of their size. This much is said advisedly, since there existed in the past—the idea is less prevalent to-day—that these plants could only be successfully grown at or near the water's edge. The idea was wrong, and led numbers into planting them in such places regardless of soil. In not a few instances clay of a most uncongenial type surrounds natural water basins, and this the Japanese *Iris* detests. Equally bad, or worse—it was in many instances attended by fatal results—among the early misconceptions

have realised the truth of the above statement, while the fact that the plants lend themselves so well to various positions in the garden should make of the latter—large or small—a more beautiful place than was possible before the whole truth concerning the likes and dislikes of these *Irises* was revealed.

True, they are moisture-loving in the highest degree. True, too, that they associate admirably with water areas and are specially adapted for water-side gardening. For this they are ideal. At the same time it should be remembered that water is not their all-in-all. Equally important is a rich vegetable soil in which the roots can ramify freely; close, tenacious soils they abhor. Then of almost paramount importance, if perennial

of committing to memory, too, is that these plants have a voracious appetite, the established clumps forming huge mats of fibrous roots; hence a rich soil is much to their liking. In the case of light soils I prefer to employ a heavy dressing of cow-manure, the cooling effects of which rather than its manurial value I find excellent for the plants. Incorporating some that is well decayed with the soil, a further layer a foot deep is good as a retainer of moisture and in other ways.

These Japanese *Irises* come to us at the end of June, and a long way into July provide a rare feast of colour beauty in the garden—white, blue of many degrees, rich violet, crimson, purple, rose and other shades which defy description, a fitting finale to a race which for months

past has played an important part decoratively and otherwise. And while the colour effect appeals strongly, perhaps even greater do the waving picturesque flowers appeal—flowers comparable to nothing but themselves, whose beauty no pen-picture could possibly portray. E. H. JENKINS.

A BEAUTIFUL TAMARISK.

THE common Tamarisk (*Tamarix anglica*) is a well-known shrub to those who reside near the sea. Its slender stems, clothed with delicate green leaves, render it a beautiful and conspicuous object during the whole summer. A newer and much more ornamental kind is that known as *T. Pallasii*, a native of Afghanistan, and quite suitable for growing in all kinds of gardens in this country. It forms a slender, upright shrub several feet high, and during July is clothed with long, pendulous spikes of small pink flowers, which, owing to their weight, give a drooping appearance to the whole plant. A variety grown by the writer, and named *T. Pallasii rosea*, is even more beautiful during its flowering period, owing to the flowers being a brighter rose pink colour. This Tamarisk is sometimes known as *T. æstivalis rosea*. These shrubs appear to be suitable for practically all soils, and when once established little attention is needed, except to cut back straggling shoots each spring. A large specimen noticed in a small lawn bed in a garden last year had had its stems tied up moderately tight to a stout stake nearly 4 feet high, and then allowed to hang down from the top. It formed a perfect weeping standard of pink.

SOME SCARLET-FRUITED ELDERS.

THOSE who only know the Elder family by the common, black-fruited shrub have no idea of the beauty that characterises some other kinds. The scarlet-fruited Elder, *Sambucus racemosa*, is a very distinct and handsome shrub when carrying its usual crop of scarlet berries, and for planting in beds in the lawn its several varieties are excellent. The most beautiful of these has plume-like, golden-hued foliage, and is listed by nurserymen under the rather unwieldy name of *Sambucus racemosa plumosa aurea*. It is well worth growing for its foliage alone. Another variety with scarlet fruit is known as *laciniata*, the foliage of which is very much lacerated, which gives the shrub quite a distinct appearance. When we come to the varieties of the common, black-fruited Elder, we find two that are worth including in all gardens where bright foliage is appreciated, viz., the golden variegated and that with greenish leaves margined with yellow.

To bring out this golden hue to the fullest extent the plants should be given a sunny, exposed position, and the two last named associate well with the variegated Japanese Maples. All the Elders need deeply worked and

well manured soil, and may be planted any time during late autumn or winter.

THE DECIDUOUS CYPRESS.

IN the Deciduous Cypress of the Southern United States we find one of the few hardy coniferous trees that shed their leaves in winter. Apart from this it is an interesting tree, because its foliage gives us two distinct colour displays during the summer and autumn months. In summer we find a beautiful, soft, verdant hue so characteristic of the Larch in spring, but in autumn the leaves take on a pretty, warm shade of brown, and usually remain in this condition for some time



ROSE LADY BOWATER. THIS WAS SHOWN BY MR. W. EASLEA AND RECEIVED A CERTIFICATE OF MERIT AT THE NATIONAL SHOW. (See page 338.)

before falling. This Cypress is an ideal tree for planting by the water-side; indeed, it appears to like to push its matted roots far into the water, and the reflection of its upright, pyramidal head clothed with graceful foliage is very effective.

Although so useful for the water-side, such a position is not essential for its successful culture; at Kew, where the natural soil is dry and sandy, two good-sized trees are thriving not far from the main entrance and far away from a pool or stream.

No doubt the beds in which the trees are growing were filled with good soil previous to planting, but the natural dryness of the surrounding soil must have an effect on the beds. H.

GOOSEBERRY CATERPILLARS.

MANY complaints have been received this year of caterpillars devouring the leafage of Gooseberry bushes, hence it may be of use to draw attention to these pests, which are difficult to get rid of. Two distinct caterpillars attack the Gooseberry and, in a lesser degree, Red and White Currants. The first of these to appear is that of the magpie moth, a pretty insect that may be seen hovering in gardens on quiet autumn evenings. It may be easily recognised by its broad wings, which are white, dotted freely with black. This lays its eggs on the foliage early in autumn, and these soon hatch into caterpillars, which feed on the foliage, but at that time do no appreciable damage.

After a short period of feeding they hibernate for the winter, usually an inch or so below the surface, or in clusters of dead leaves in nooks of walls. In the spring they come forth once more, and at that time, and in early summer, when the leaves are comparatively young and succulent, inflict much harm. The caterpillars, like the moth, are yellowish white with black dots, and about three-quarters of an inch in length.

The other caterpillar that attacks bushes of these fruits is that of the sawfly, a small yellowish-coloured insect. It usually appears in May, and lays its eggs on the under sides of the leaves and close to the veins or ribs. These quickly hatch, and the caterpillars, which are small and pale green in colour, will quickly strip the bushes of their foliage. These caterpillars after a few weeks turn into chrysalides, enter the soil, and subsequently return again later in the summer as flies. These lay more eggs, the last batch of caterpillars remaining in the chrysalis state an inch or 2 inches under the soil for the winter. Leaves on which eggs have been deposited should be sought for, picked off and destroyed. Caterpillars may also be picked off

by hand and destroyed where only a few bushes are affected.

Various washes composed of Hellebore powder or Paris green have been found effective, and dry Hellebore powder may be dusted on the leaves; but as both substances are poisonous, one hesitates to recommend their general use. A safe and moderately effective remedy is to dust the bushes while damp with lime and soot, repeating the applications at frequent intervals. The best time to combat both pests is the winter, when the soil beneath the bushes to a depth of 2 inches should be removed and either burned or buried very deeply in some other part of the garden where the pests will have no chance of regaining the surface. E. G.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Tomatoes.—Seeds may be sown now for raising plants to fruit in the late autumn and winter. Endeavour to grow the plants as sturdily as possible by potting firmly and keeping them growing near to the glass in a light structure. The seeds must be sown thinly, so that there shall be no danger of the plants becoming drawn while in the seed-pans. Plants in fruit should be given every encouragement to perfect their crops by watering with stimulants and top-dressing the roots with fresh materials.

Cucumbers.—Much attention is needed in the thinning and regulating of Cucumbers at this time of the year. The plants must be gone over at least every ten days for this purpose. When in full bearing, frequent small top-dressings of loam and well-seasoned horse-manure will keep the plants in a healthy condition. Plenty of stimulants should also be afforded when watering. Liquid farmyard manure alternated with a sprinkling of fertiliser will be suitable.

Cucumbers in Frames.—Much care is necessary in ventilating the frames when the weather is cold and stormy, or mildew will attack the plants. Keep the growths regularly thinned and stopped, and give the plants the same liberal treatment as advised above. Should mildew appear, dust the leaves with flowers of sulphur.

Plants Under Glass.

Asparagus Sprengeri.—This is a most useful plant for cutting, and easily raised from seed. For cutting we grow a number of plants in 6-inch pots. Plenty of growths are then available during the autumn and winter.

Smilax.—The back wall of a vinery is an excellent position in which to grow this useful plant. When planted out, the growths will quickly reach the top of the house. The soil must not, however, be too rich, or the growths may grow too strong.

Lapagerias.—Plants growing in large pots or tubs must be liberally supplied with manures. The young growths should be regulated and tied at intervals of a few days. Mealy bug must be watched for, or it will quickly smother the plants. Methylated spirit, applied with a small brush, is an effective remedy.

Campanula pyramidalis.—Keep the plants well watered, or the lower leaves will fall, thus detracting from the appearance of the plants. Their blooming may be retarded by plunging the pots in ashes behind a north wall. If not already done, seeds may be sown for producing plants for next season.

The Flower Garden.

Carnations.—It may be necessary in some cases to thin the flower-buds. Keep the plants neatly tied to stakes, or place wire supports among them. Layering must be attended to as soon as the plants have flowered. Next month, cuttings of the Perpetual-flowering kinds may be inserted for flowering in the borders. Mrs. Burnett, May Day and Britannia are all suitable for outdoor flowering.

Gladioli.—The flower-spikes will require the support of stakes to prevent damage from rough winds. A top-dressing of old Mushroom-bed manure or something similar will be beneficial during dry weather.

Dahlias.—Cut out the weak, useless growths from the plants and securely stake those remaining. These plants have needed abundance of water during the long spell of drought which we have experienced during the greater part of May and June. Beds of Dahlias should be mulched with some moisture-retaining material.

The Hardy Fruit Garden.

Late Strawberries.—The main crop of Strawberries has been of short duration, due to the abnormally hot, dry weather. Those who have a plantation in the shelter of a north wall will be fortunate. It is a good plan to make a small plantation every year in a cool situation. In the event of a continuation of the drought, late Strawberries must be carefully watered, or the latest fruits will fail to swell.

Autumn-Fruiting Strawberries.—If the fruits are required in the autumn, the flower-spikes must still be kept picked off. Keep the plants free from runners and weeds, and give plenty of water. It is a good plan to grow a batch of plants in pots, as then they can be grown on a shelf in a cool house when the nights become too cold.

The Kitchen Garden.

Cabbage.—A sowing of Cabbage may be made towards the end of the month, and another early in August. Sow in drills about a foot apart in an exposed situation. If the ground is dry at the time of sowing, the drills must be watered.

Turnips.—It has been necessary to frequently water this crop to prevent bolting. Well-seasoned soot has been of great assistance, both as a stimulant and in preventing the ravages of the Turnip fly. A good sowing may now be made for autumn supplies.

Winter Onions.—These have done well this season, and the bulbs will soon be fit to lift. Winter Onions will keep for a considerable time if they are lifted at the proper time, thoroughly dried, and placed in a cool shed.

Salads.—Mustard and Cress is best grown in a cold frame where it can be easily shaded from bright sun. Radishes must be grown in a shady situation and watered frequently. Sow Lettuce and Endive regularly till the end of the month, and prick out young plants from earlier sowings, watering them frequently till they have recovered from the check. It is a good plan to sow Lettuce thinly where the plants are to mature. Thin out the young plants as soon as they are large enough to handle.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

Plants Under Glass.

Malmaison Carnations.—Plants which were layered in frames about the middle of June will be commencing to root, and must have more air admitted accordingly. The shading should be put on about 10 a.m. and removed about 4.30 p.m. whenever the weather is bright. Too free a use of the shading is apt to encourage a soft, green growth not desirable in Malmaisons and more liable to be attacked by rust. As soon as it is certain the plants are sufficiently rooted, the layers can be severed from the parent plant previous to potting.

Climbers in both stove and greenhouse need constant tying and regulation of growths. *Clerodendron Balfouri* when it has passed out of bloom should have the shoots that have flowered shortened. *Streptosolen Jamesonii* is a very fine climber for the greenhouse. This plant resents too free a use of the watering-can, so care is necessary to get it to flower successfully.

Eupatoriums can now be potted into their flowering pots. A cold frame will suit them up till September if it is shaded from bright sunshine and kept moist.

Salvia splendens may still be potted into the final pots, but plants which were potted earlier have the best chance to make large specimens, as after they are well rooted in the soil they respond freely to liberal applications of liquid manure. Plants which are to be grown as standards must now be allowed to form heads, so that they will be of a presentable size by September, when they commence flowering.

The Kitchen Garden.

Carrots may still be sown if the variety chosen is a Short Horn, which quickly matures. The earlier-sown ones are at the stage when they are most likely to be attacked by the Carrot fly, so should be frequently dusted with soot to prevent this pest from getting a footing.

Celery.—Early plants are growing apace, and must be kept continually moist. The foliage, when wet with dew or rain, should receive an occasional dusting of stale soot.

Peas which are exhausted must be cleared off, the haulm burnt, and the ground filled up with such vegetables as Broccoli, Savoys or winter greens. If used for growing late Broccoli, the ground need not be dug. All that will be necessary is to clear off the weeds and plant the Broccoli with a trowel. No matter how hard the ground may be, it will encourage a dwarf, firm growth, which will more readily withstand the winter.

Mulching Peas.—In very dry weather the cropping of Peas can be greatly assisted by applying a mulching after watering. Material from a spent Mushroom-bed is best for the purpose; but, failing this, some short litter or half-rotted stable manure will answer well enough.

Lettuces require to be sown more frequently during hot weather, as they run to seed more rapidly. Cos varieties, which do not turn in very readily, should be tied up to hasten the formation of the heart.

Fruit Under Glass.

Melons in Frames.—Plants grown in frames are usually more difficult to fertilise to get an even set of fruit. Especially is this so if there is a period of dull, moist weather when they are in flower. The best course is to again pinch a number of the laterals, in the hope that there may be more sunshine when flowers appear on the sublaterals. Try to maintain a minimum temperature of 70° during the night, and ventilate very carefully during the daytime, letting the weather conditions decide how much air is to be admitted.

Late Peach-Houses.—Houses containing trees which are required to fruit as late as possible should not be retarded too much by too free a use of the ventilators, otherwise the trees are apt to get dried too quickly, with the result that red spider appears. Try to prevent this by keeping the atmosphere sufficiently moist by syringing morning and afternoon, and also see that there is plenty of moisture in the borders, not forgetting to add food when watering.

Late Vineries.—The Grapes are now at the critical stage when stoning is in progress. This is the time when certain varieties are very apt to scald, so that great care is necessary, paying strict attention to all the smaller details of cultivation.

The Hardy Fruit Garden.

Wall Trees.—The trees growing against walls, naturally, do not receive their fair share of rainfall. It is therefore necessary to make this good by artificial means. It is also noticeable that the soil close to the wall dries up more quickly than that in the open. After applying water, a mulching should be given around the trees and the hoe must be used constantly.

Netting Fruit.—This necessary guard against attacks from wild birds should not be delayed unduly, especially during dry weather, as it is at such a time that some of the birds' natural food is scarce; consequently they commence to feast on fruit often before it is ripe. Whenever possible, the nets must be supported clear of the fruit trees and bushes; this is advantageous in every way. If wire netting is available, the part to be netted should be surrounded by this, as it prevents the nets coming in contact with the ground, where they quickly rot if the weather is wet. When netting wall trees, the nets should be hung clear of all the growths and fruit by using short stakes and supports.

The Flower Garden.

Roses.—The season for budding is now here, and the stocks which are intended for Rose bushes can now be budded. Some varieties, of course, may not be yet fit for operating upon; but this is easily ascertained when commencing to remove the bark, which, when ripe enough, should part readily without much persuasion. The material used for tying up the buds must not be of such a kind as would cut or strangle the stems, which naturally expand as growth proceeds. Standards which are to be budded should have the support of a stake to prevent the wind loosening them. It is usually possible to discern within a fortnight whether the buds are going to "take" or not, so that if looked over in time the unsuccessful ones can be replaced by putting on others either above or below the original bud.

JOHN JEFFERY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

ANSWERS TO CORRESPONDENTS.

FLOWER GARDEN.

ALYSSUM SAXATILE FAILING (F. H.).—We can only suggest that the soil is either too rich for this rock-loving subject or that the plant, by repeatedly being bedded there, has become sick of the place and soil. In either of these cases a dressing of lime would act as a corrective, or a very considerable addition of old mortar siftings might be even better. The Alyssum, owing to the nature of its roots, does not retain much soil, and is not one of the best subjects for transplanting: this might prove a predisposing cause of the failure. A remedy for this would be growing the plants in 5-inch pots, and, raised early from seeds, sturdy examples would result. Have you been growing the plants too liberally for the purpose? We ask the question advisedly, since it is the grossly grown plant which is usually the first to fail. Pot-grown examples would produce a more compact growth and be far more reliable and prodigal of flowering.

FLAG IRISES FAILING (M. M. K. C.).—The list of Irises you submit are not all strictly of the germanica set. Two are, however; the others belong to the sections known as neglecta, plicata, variegata and pallida, all of which are recognised under the general definition of Flag or Bearded Irises, and not infrequently referred to as Iris germanica. The pallida section is by far the most important, and of this your list contains but one representative. The clumps you send are quite rotten, and in forty years we have not seen their equal in this respect. All such should be lifted and burnt without delay. As far as can be judged by the plants and the particulars given, we should consider the failure due in part to the deep burying of the rhizomes, though, most of all, to the excessively wet conditions caused by flooding in conjunction with the heavy water-holding nature of the soil. If you have no higher or drier ground and cannot raise the soil of the present site so as to be immune from the flooding, perhaps something could be done to render the drainage more perfect, so that the water would more quickly pass away. Road sweepings or any light material would do to raise the height of the bed, and gravel and sand liberally applied in conjunction with deep, open trenches, if such are possible, would make the drainage more efficient. Lime may also be added to the soil. It would be best to wait till early September, and at that time make the soil as light as possible. In replanting, employ only the freshly formed rhizome of the current season, discarding all else which is useless to the plant and the planter. Never replant big clumps intact; they are better broken up. Replant the Lupines at the same time as the Irises; they are equally hardy and enduring, though what effect the "occasional flooding" will have upon them will depend very much upon its duration and the severity of the weather at the time.

FRUIT GARDEN.

MELON LEAVES FOR INSPECTION (T. L.).—The Melons are attacked badly by the root eelworm, which has produced numerous "knots" or galls upon them. Nothing can now be done to save them, though earthing up might prolong their life a little. As soon as they are done with they should be rooted out and burned, and the whole of the soil removed and either burned or spread on a pasture, not on the garden. The house should be thoroughly cleansed and disinfected before any further attempt to grow Melons, Cucumbers or Tomatoes in it.

MISCELLANEOUS.

VARIOUS QUESTIONS (Kerlique).—The Apple trees have been badly attacked by the leaf-curling aphid, which has been particularly prevalent this season. The insects on the leaves sent are, however, friends, No. 1 being the larva of the ladybird and No. 2 that of one of the hover flies, both devouring green flies with great avidity and doing much to diminish the number of those pests. The insects damaging the Strawberries are probably the black beetles of which you speak. They may best be captured by sinking smooth-walled jars or basins, so that the level of the top rim coincides with the level of the soil. Bait them with pieces of meat, of which the beetles are very fond. It is only at this season of the year that the beetles eat any but a flesh diet. The small millepedes are also troublesome, and may be captured by burying pieces of Potato near their haunts and examining them at frequent intervals.

NAMES OF PLANTS.—*Sister M. Francis.*—Mesembryanthemum edule.—*Boris.*—1, Mme. C. Joigneaux; 2, Jean Cherpin; 3 and 4, Lælia; 5, Prince Arthur; 6, Baroness Rothschild; 7, La Rosière. In future please send 3 inches or 4 inches of growth.—*E. T.*—1, Erigeron philadelphicus—this is not obtainable in other colours; 2, Clematis integrifolia; 3, Campanula persicifolia alba.—*Miss E. A. Patsh.*—Dictamnus albus.—*E. H.*—1, 2 and 3, Seeding garden Pinks; 4, Myosotis, too poor to recognise; 5, Saxifraga canaliculata; 6, Boronicum plantagineum; 7 and 8, forms of Sedum acre; 9, S. album brevifolium; 10, Galium verum.—*H. H. Cot.*—Cist s ladaniferus mac lat s (Gim Cistus).—*P. H.*—1, Trillium grandiflorum; 2, Scrophularia aquatica variegata; 3, Vinca minor aurea; 4, Polygon m cuspiatum; 5, Anemone angulosa; 6, Anemone canadensis.

THE NATIONAL ROSE SOCIETY'S SHOW.

THE metropolitan exhibition of the National Rose Society, held in the Royal Botanic Gardens, Regent's Park, on Tuesday of last week, though not quite so large as some previous shows, was exceedingly good. The quality of the blooms throughout left little to be desired, and owing to the dull weather they remained in excellent condition until the end of the show. Table decorations were superb, but we hope the Council will in future prevent members of the trade displaying quantities of advertising literature on these tables. Anything more incongruous and undignified could scarcely be imagined. The descriptions of new Roses will be found on page 338.

NURSERYMEN.—EXHIBITION ROSES.

Champion Trophy Class.—Seventy-two blooms, distinct varieties: First, Messrs. B. R. Cant and Sons, Colchester, whose superb collection contained a wonderful flower of Coronation (pink, silver medal), and excellent examples of Mrs. W. J. Grant, Edward Mawley, Mildred Grant, H. V. Machin, O. Terks, Freda (pink), Mrs. G. Norwood (fragrant, pink-flowered), Earl of Gosford (scarlet), St. Helena, Mme. Jules Grolez, A. Hartman, Mrs. Forde, Frau Karl Druschki, Ethel Malcolm, Countess of Gosford, White Maman Cochet, Lyon Rose, George Dickson, Florence Forrester (a very good white), J. B. Clark, Lady Barham, Colcester (pink), Mrs. Cornwallis-West, Ulrich Brunner, H. E. Richardson (crimson) and Molly Sharman Crawford. A formidable and powerful lot, well away in the front place. The second prize was taken by Messrs. Frank Cant and Co., Colchester, whose admirable lot included George Dickson, Edward Mawley, Mrs. Theodore Roosevelt, Alice Lemon, Ethel Malcolm, Lady Mary Ward (orange), C. J. Grahame, Albatross, General French, Dean Hole, George C. Waud, Sunburst, Avoca, William Sheen and Mme. Melanie Soupert. Third, Messrs. D. Prior and Sons, Colchester, whose best flowers were H. V. Machin, Lady Barham, Mrs. Charles Russell, Florence Forrester, Ethel Malcolm, Elizabeth, Mme. Melanie Soupert, Joseph Hill, Juliet, Mildred Grant, Mme. Jules Graveraux, Mrs. J. H. Welch and Mrs. Myles Kennedy (pinkly white). Fourth, Messrs. A. Dickson and Sons, Newtownards.

Forty distinct varieties, three blooms of each: First, Messrs. B. R. Cant and Sons, Colchester, whose best were Lady Ashtown, Lohengrin, St. Helena, H. E. Richardson (crimson), Frau Karl Druschki, H. V. Machin (scarlet), Lady Helen Vincent, British Queen (white), Mrs. Andrew Carnegie (white), A. Hartman (scarlet), Mrs. J. H. Welch, Yvonne Vacherot, J. B. Clark, Mrs. George Shawyer, Mrs. Arthur Coxhead, Edward Mawley, Mrs. W. J. Grant, Leslie Holland, Dean Hole, Bessie Brown and Lady Barham were all exceptionally fine. Second, Messrs. Alex. Dickson and Sons, Newtownards, whose Margaret Dickson Hamill (golden), Mrs. Moyna (pink), Mildred Grant, H. V. Machin, Mrs. J. Campbell Hall, Mrs. George Shawyer, Lady Barham (pink), Florence Pemberton, Mrs. W. J. Grant, George C. Waud, Bessie Brown and Lady Greenall were all good. Third, Messrs. Frank Cant and Co., Colchester, whose Mrs. Theodore Roosevelt, Mrs. Andrew Carnegie, Lady Ashtown, Mildred Grant, Ethel Malcolm, Mrs. J. H. Welch and Captain Hayward were among the best.

China Trophy Class.—Forty-eight blooms, distinct varieties: First, Messrs. Hugh Dickson and Sons, Royal Nurseries, Belfast, whose Gorgeous (orange), Hugh Dickson, British Queen (fine white), Mrs. Charles Russell, Mme. Jules Graveraux, Mrs. Hugh Dickson, J. B. Clark, Mrs. Foley Hobbs (silver medal, probably the most magnificent Rose bloom ever seen at an exhibition), Brilliant, Dean Hole, Muriel Dickson, Edward Mawley, George Dickson and Sir William Q. Ewart were superb. Second, Mr. H. Richards, Warsash, Hants, whose Florence Forrester, Edward Mawley, Mildred Grant, Lieutenant Chauré (rich cerise red), Lady Ashtown, Snow Queen, Mrs. Foley Hobbs, Mary Alexander Lippiatt, Marquise de Sinety, Königin Carola, J. B. Clark, Mrs. J. H. Welch and Her Majesty were the best. Third, Mr. George Longley, Chapel Lane Nurseries, whose Countess of Shaftesbury, Mrs. George Shawyer, Marquise de Sinety, Mrs. H. Stevens (very fine white), Joseph Hill, Lyon Rose and Colonel N. S. Williamson were very good. There were six contestants, high-class flowers being the rule.

Twenty-four distinct varieties, three blooms of each: First, Messrs. G. and W. H. Burch, Peterborough, who showed Souvenir de Pierre Notting (very rich in colour), Mrs. W. J. Grant, Mrs. J. H. Welch, Lyon Rose, Mrs. Theodore Roosevelt, Mrs. George Shawyer, Lady Ashtown, Ethel Malcolm, Mme. Jules Graveraux, Edward Mawley, H. A. Moore and Margaret in excellent condition. Second, Messrs. J. Burrell and Co., Cambridge, who had fine examples of Mrs. Foley Hobbs, Coronation, Mme. Melanie Soupert, Candeur Lyonaise (white), Lyon Rose and Mme. C. Soupert. Third, Mr. J. Pigg, Royston.

Twenty-four blooms, distinct varieties: First, Mr. Henry Drew, Longworth, Berks, who staged Dean Hole, Lyon Rose, Mrs. J. H. Welch, Mildred Grant, Edward Mawley, George Dickson, H. V. Machin and William Sheen very finely; second, Mr. W. R. Hammond, Burgess Hill, whose Mrs. Foley Hobbs, Mme. Constant Soupert and Mildred Grant were excellent. Mr. J. Mattock, Oxford, was a good third. Eight competitors staged collections in this obviously popular class.

For twelve distinct varieties, three blooms of each, Mr. Henry Drew, Longworth, was again in the place of honour with a capital set. His best examples were those of Mildred Grant, Mabel Drew, J. B. Clark, George Dickson, Dean Hole and Mrs. Andrew Carnegie (a really superb white). Mr. J. Mattock, Oxford, was second, having

Mrs. Charles Russell, Mildred Grant, Mrs. George Norwood, Dean Hole, Bessie Brown and Mrs. J. H. Welch, among others. Third, Messrs. Chaplin Brothers, Waltham Cross. There were four entries in this class.

EXHIBITION ROSES, TEAS AND NOISSETTES.

D'ombrain Cup.—Twenty-four blooms, distinct varieties: First, Mr. George Prince, Oxford, whose best blooms were those of Mrs. Foley Hobbs, Mrs. Edward Mawley, Maman Cochet, Mrs. Campbell Hall, Maréchal Niel (very good colour) and Mme. Constant Soupert; second, Mr. Henry Drew, Longworth, whose White Maman Cochet, Mrs. Edward Mawley, Mme. Constant Soupert, Ethel Brownlow and Mrs. Foley Hobbs were very fine. Messrs. Frank Cant and Co., Colchester, were third. Five competitors staged in this class.

Twelve blooms, distinct varieties: First, Mr. J. Mattock, Oxford, who showed Mrs. Foley Hobbs, White Maman Cochet, Muriel Grahame and Mrs. Hawksworth (very good); second, Mr. H. Richards, Warsash, Hants, his Hugo Roller being very good; third, Messrs. J. Burrell, Cambridge.

Sixteen distinct varieties, three blooms of each: First, Mr. G. Prince, Oxford, who staged superb Mrs. Foley Hobbs, Molly Sharman Crawford, Mrs. E. Mawley, Maréchal Niel, Nita Weldon, Mrs. M. Kennedy, Maman Cochet and Mme. Melanie Soupert very finely; second, Mr. H. Drew, Longworth, whose Maman Cochet, Nita Weldon, Comtesse de Nadaillac, White Maman Cochet and Mme. Constant Soupert were very fine; third, Messrs. D. Prior and Son, Colchester, whose best blooms were White Maman Cochet, Mrs. Foley Hobbs and Mme. Jules Graveraux.

EXHIBITION ROSES IN VASES.

Twelve distinct varieties, seven blooms of each: Usually this is one of the most effective classes in the show, and brings many exhibitors. On this occasion only one firm put in an appearance—Messrs. Prior and Sons, Colchester—and were awarded first prize for a really good lot. The best vases were Richmond, Ethel Malcolm, Mme. Edouard Herriot, Lyon Rose, General Macarthur, Caroline Testout and M. S. W. J. Grant.

For nine distinct varieties, Teas and Noisettes, seven blooms of each, Messrs. Prior and Sons were again placed first, showing White Maman Cochet, Mme. Constant Soupert, Mrs. Foley Hobbs and Mme. Jules Graveraux; second, Mr. George Prince, Oxford, whose Comtesse de Nadaillac, Mrs. H. Stevens, Mrs. Dudley Cross and Nita Weldon were all good; third, Mr. J. Mattock.

PERPETUAL-FLOWERING DECORATIVE ROSES.

This section includes the basket classes, which, without exception, are the most decorative of the whole show. On this occasion the competition was keen throughout, no fewer than six competitors staging in that for nine baskets of Roses, distinct varieties. First, Messrs. Hugh Dickson, Limited, Belfast, who with a superb lot this year won the Kilbee-Stuart Cup outright. Ulster (standard, single scarlet), Irish Elegance, Ethel Malcolm (flesh colour), Mme. Melanie Soupert, Lady Pirrie, Lyon Rose, Mrs. George Shawyer, Mrs. David McKee and Lady Ashtown were the varieties staged. Messrs. Chaplin Brothers, Waltham Cross, were second, staging Rayon d'Or, Mrs. Herbert Stevens, Joseph Hill, General Macarthur, Old Gold, Mme. Melanie Soupert, Lady Hillingdon and Mrs. George Shawyer. Third, Mr. J. Mattock, Oxford, who also had a very fine lot.

For five baskets of Roses seven entered, and, as evidence of the keenness of the competition, equal first prizes were awarded to Mr. W. Easlea, Eastwood, Leigh-on-Sea, and Mr. George Prince, Oxford, the former showing Lady Hillingdon, Mme. Edouard Herriot, Chateau de Clos Vougeot (one of the darkest of Roses), Mrs. H. Stevens and Louise Catherine Breslau; the latter having Lady Pirrie, Lady Hillingdon, General Macarthur, Mrs. H. Stevens (a superb white) and Richmond. Needless to say, both sets were in every way admirable.

Eighteen distinct varieties, in vases, not more than seven stems of each variety: Messrs. D. Prior and Son, Colchester, and Messrs. Chaplin Brothers, Limited, took first and second prizes respectively, each having a goodly assortment. Third, Mr. G. Longley.

Nine distinct varieties, not more than seven stems each: First, Mr. George Prince, Oxford, who staged Josie Nicholson, Queen Mary, Mme. Edouard Herriot, Lady Hillingdon and G. C. Waud as his best. Second, Mr. W. Tayler, Hampton, whose Lady Ashtown, Ecarlate, Marquise de Sinety, Mme. Abel Chatenay, Mme. Alfred Carrière and Mme. Melanie Soupert were very good.

DECORATIVE ROSES.

A. C. Turner Cup.—Thirty-six distinct varieties, not less than three nor more than twelve stems of each: First, Mr. J. Mattock, Oxford, who had Irish Flame, Ecarlate, Lady Hillingdon, Mme. Edouard Herriot, Iona Herdman (rich golden), Irish Elegance and Simplicity (single white). Second, Messrs. F. Cant and Co., who staged Mrs. A. Tate, A. R. Goodwin, Rayon d'Or, Irish Beauty (single white) and Duchess of Wellington.

Twelve distinct varieties, conditions as before: First, Mr. Frank Spooner, Horsell, Woking, whose very fine lot included Ecarlate (crimson), Lady Hillingdon, Mrs. A. Tate, Irish Beauty, Mrs. H. Stevens, General Macarthur, and Trier (white climber). Second, Mr. C. Turner, Slough, who had Old Gold, Mrs. H. Stevens, Simplicity, Lady Hillingdon and Butterfly (pink single, very beautiful). Third, Mr. G. Longley, Rainham, Kent. Seven competed.

Twelve distinct summer-flowering Roses, Hybrid Perpetuals, Hybrid Teas, Teas, Chinas and other perpetual-flowering varieties not admissible. There were five entries, the first prize going to Messrs. F. Cant and Co., Colchester, who had Seagull, Helena, Lady Curzon, Rosa Mundi and Aglaia, among others. Second, Mr. F. Spooner; third, Mr. Elisha J. Hicks.

For nine distinct varieties of new decorative Roses five entered, the first prize going to Mr. C. Turner, Slough, who had Mme. Edouard Herriot, Old Gold, Cissie Eastlea, Pearl (single white) and Queen of the Musk; second, Mr. Elisha J. Hicks, whose best were Cherry Page, Princess Mary (very fine single crimson) and Iona Herdman (rich golden) among others; third, Messrs. Frank Cant and Co.

Twelve distinct Dwarf Polyantha Roses: First, Mr. Elisha J. Hicks, who had Jeanne d'Arc, Echo, Erna Teschendorf and Ellen Poulsen; second, Mr. G. Prince, Oxford, whose Marie Pavic, Jessie, Perle d'Or and Canarienvogel (yellow) were his best.

For twelve distinct wichuraiana varieties in vases, Mr. Elisha J. Hicks was again first, having Alberic Barbier, Shower of Gold, Aviateur Blériot, Diabolo and Gardemia; second, Mr. G. Prince, whose Jersey Beauty, Elise Robichon, Shower of Gold, René André and Diabolo were his best blooms.

For a representative group of Roses placed on the floor in a space of 250 square feet, two competitors appeared, Messrs. Hobbies, Dereham, being first with a magnificent setting of Teas and Hybrid Teas under a superb lot of standard and weeping sorts. The former were in basket groups, such as Rayon d'Or, Jonkheer J. L. Mock, Mrs. Amy Hammond, Mrs. G. Sawyer, Mrs. A. Tate, Duchess of Wellington and Betty being admirable. Of standard sorts, Hiawatha, Lady Gay, John Green, Delight, Lady Godiva, Pemberton's White Rambler and White Dorothy were all charming and good. A pretty arch of Roses led into the interior of a very delightful group. Second, Messrs. George Paul and Sons, Cheshunt, whose strength lay in the Hybrid Teas in the front of the group. These were very beautiful and in great variety, some of the more conspicuous being Duchess of Wellington, Marquise de Sinety (both rich and good in colour), Naiad (flesh tinted pink, very charming), Paul's Lemon Queen, Mrs. David McKee and Little Dorrit. Polyantha and allied sorts were in the background.

Royal Botanic Society's Cup.—For a representative group of cut Roses 33 feet by 3 feet, two competitors appeared, the first prize going to Messrs. W. and J. Brown, Peterborough; second, Messrs. Stuart Low and Co., both of whom staged very fine collections.

For a representative group of cut Roses on a space not exceeding 20 feet by 3 feet, four competitors staged exhibits, the first prize going to Messrs. George Jackman and Sons, Woking, for a superb lot of blooms. Stands of varying heights were employed with vases of flowers in the foreground, and a fringe of Jessie or nearly allied sort along the front. The best stands were those of Melody, Lady Pirrie, Rayon d'Or, Le Progrès, Duchess of Wellington, Gustave Regis, Lady Hillingdon, and Lady Ashtown. The group was well staged and of an imposing character. Second, Messrs. B. R. Cant and Sons, Colchester, whose central grouping of Cupid, a new flesh-coloured single of great freedom of flowering, was charming in the extreme. A. Hartman (cerise scarlet) was quite superb, and hardly less so the admirable stands of Autumn Tints, Betty, Countess of Derby, Mme. Melanie Souper and Queen Alexandra (a charming lemon, flushed pink single greatly admired by Her Majesty when passing through the tents). Third, the Rev. J. H. Pemberton, Havering-atte-Bower, who, staging a particularly good lot, also showed not a little courage in contesting in such a class. Basket groups of Lady Pirrie, the rich crimson scarlet Ecarlate (a China bedding Rose 18 inches high) and Countess of Shaftesbury were very good.

OPEN TO NURSERYMEN AND AMATEURS.

For twenty-four Roses in two varieties, twelve white and twelve crimson, five competitors staged, the premier award going to Messrs. B. R. Cant and Sons, Colchester, for an admirable lot of Mrs. Andrew Carnegie and Edward Mawley, white and crimson respectively. Messrs. W. and J. Brown, Peterborough, were second, having Mrs. Foley Hobbs (white) and J. B. Clark (crimson), the latter being exceptionally fine.

Eighteen blooms of any Hybrid Perpetual, to be shown in a basket: First, Mr. H. Drew, Longworth, with Gloire de Chedane Guinoisseau (scarlet). Second, Messrs. Stuart Low and Co., Enfield, who staged Mrs. C. Russell (pink) in capital form. There were five competitors.

For eighteen blooms of any Rose other than Hybrid Perpetual, Tea or Noisette, to be shown in a basket, no fewer than twelve exhibitors staged, the first prize going to Mr. Elisha J. Hicks, Twyford, for the shapely, pink-flowered and highly fragrant Mrs. George Norwood, a beautiful variety in every way. Second, Mr. H. Richards, Warsash, Hants, who staged Mrs. Andrew Carnegie (white). Third, Messrs. Stuart Low and Co. with Mrs. D. McKee.

Eighteen blooms of any Tea or Noisette in a basket: First, Mr. J. Mattock with Mrs. Foley Hobbs (very fine); second, Messrs. Chaplin Brothers, Waltham Cross; third, Mr. H. Drew.

For one basket of pernetiana Roses nine exhibitors came to the front, Messrs. Stuart Low and Co., Enfield, taking first place with Mme. Edouard Herriot; second, Mr. J. Mattock, who had good Rayon d'Or; third, Messrs. Chaplin Brothers with Mme. Edouard Herriot.

Nine blooms of any new Rose: First, Messrs. B. R. Cant and Sons, Colchester, who had the rich red, fragrant A. Hartman; second, Mr. Elisha Hicks with Mrs. G. Norwood; third, Mr. W. R. Hammond, Burgess Hill, with Annie Crawford, an extra fine pink variety.

Twelve blooms of new Roses, distinct varieties: First, Mr. Elisha Hicks, who had Candeur Lyonnaise, Mrs. George Norwood, H. V. Machin and Florence Forrester; second, Messrs. B. R. Cant and Sons with A. Hartman, Mrs. Andrew Carnegie and Florence Forrester; third, Mr. G. Prince. Seven exhibitors competed.

OPEN ARTISTIC CLASSES.

A decoration of cut Roses for dinner-table was a very excellent competition, the five exhibits exemplifying floral art very satisfactorily. First prize was awarded to Mr. Elisha J. Hicks, Twyford, Berks, for a table decoration of his new seedling Hybrid Tea Princess Mary (single, sweetly scented). This is a very fine Rose, and an exquisite crimson colour. It is a really glorious flower. During the afternoon this table was strewn with postcards, which quite spoiled the beautiful effect. A splendid decorated table of Irish Elegance secured second prize for Mrs. Alex. Robinson, and an equal second prize was awarded to Mrs. F. M. Bradley, Peterborough, for a rather formal arrangement. Third prize was secured by Miss Chaplin, Waltham Cross, for an interesting exhibit of Irish Fireflame.

There were eight exhibits in the class for three sprays of Roses suitable for ladies. A pretty series won first prize for Mrs. F. H. Cooke, Birch, Colchester. Second prize was won by Mrs. Oakley Fisher for a richly coloured series, and a superb set won third prize for Mrs. F. M. Bradley, Peterborough.

For a bowl of cut Roses with foliage only and buds five competed, the premier award going to Miss Chaplin, Waltham Cross, for an artistic arrangement of Bessie Brown with coppery foliage. Equal second prizes were awarded Mrs. A. Bide, Farnham (who had Lady Curzon), and Mr. Elisha J. Hicks (who arranged a fine bowl of the single crimson Princess Mary).

AMATEURS' CLASSES.

The discerning visitor could scarcely fail to be impressed by the quality of the principal exhibits. Each year the best amateur collections bear more favourable comparison with those in the trade classes, and the exhibits at Regent's Park this year show how skilful the best amateurs have become.

The championship class was won by Mr. H. L. Wettern with thirty-six exhibition blooms of first-rate quality. There was not a "weak" bloom in the exhibit, which was characterised by size, perfect form and very fresh condition. As being the very best, mention may be made of Mrs. J. Laing, Lady Ashtown, Avoca, Bessie Brown, Florence Pemberton, Elizabeth, Augustus Hartman, George Dickson and Mrs. J. H. Welch. Dr. T. E. Pallett, who won the trophy and gold medal last year, was an exceedingly good second, showing excellent blooms of Lieutenant Chauré, Augustus Hartman, Nita Weldon and J. B. Clark. Mr. F. Dennison was third.

Mr. Wettern also won the first prize for twenty-four exhibition blooms with another splendid exhibit, which included beautiful blooms of Margaret, Ethel Malcolm, Florence Pemberton, Mrs. J. H. Welch, Lady Greenall, Lady Alice Stanley and General Superior Janssen. Dr. T. E. Pallett was again second, and his outstanding varieties were Mildred Grant, White Maman Cochet and Mrs. Andrew Carnegie. Mr. G. A. Hammond was third.

The class for trebles of twelve varieties is an exceedingly trying one for amateur growers who have a limited number of plants, but the first prize collection of Mr. F. Dennison was particularly rich in trios of Dean Hole, Lady Ashtown and Bessie Brown. Mr. Conway Jones, who was awarded second prize, had a slightly less even exhibit, but included delightful trebles of George Dickson and Coronation.

Dr. T. E. Pallett, showing Mildred Grant in splendid condition, won the first prize for twelve blooms of any Rose other than Tea or Noisette, and Mr. A. Hill Gray was second.

The Hobbies Cup, offered for twenty-four exhibition blooms, always induces a strong competition at the summer show, and this year's was no exception. The class is restricted to growers of fewer than 3,000 plants, and the cup was won by Mr. W. O. Times with a splendid collection of twenty-four blooms, of which we selected William Shean, George Dickson and Coronation as being the very best. Mr. C. C. Williamson was placed second, and Mr. H. R. Darlington third.

With magnificent blooms of Mildred Grant Mr. Times also won the first prize for twelve blooms of any variety other than Tea or Noisette, and here Mrs. J. B. Fortesque was second.

In the class open only to growers of fewer than 2,000 plants the best twenty-four blooms were shown by Mr. W. J. Thorp, who had a most praiseworthy exhibit, of which British Queen was the outstanding variety. The eighteen varieties were also exceedingly good, and here Mr. R. de V. Prior with especially good blooms of Jonkheer J. L. Mock and William Shean won the piece of plate, and Mr. P. T. Davies was second with a remarkably even set of Mrs. Andrew Carnegie.

The first prize for nine blooms of any Rose other than Tea or Noisette was won by Mr. D. H. Davies, who also won chief honours in the extra class for Divisions E and F, requiring six varieties in trebles, with remarkably fine trios of such as Mrs. Theodore Roosevelt and Dean Hole. Mr. John Hart was second.

The Ben Cant Memorial Prize, restricted to growers of fewer than 1,000 plants, brought a magnificent board of twelve blooms from Dr. C. Lamplough, who won the first prize.

Showing splendid examples of Dean Hole, Mrs. Henry Balfour had the best nine blooms of any Rose other than Tea or Noisette in this division.

Mr. E. B. Lehmann, who included a superb bloom of William Shean, won the chief prize in the division for growers of fewer than 750 plants; and in the extra class for the above two divisions there was an exceedingly good competition, Mrs. Henry Balfour winning the first prize with a splendid collection, which included a perfect bloom of Mrs. Theodore Roosevelt.

The first prize exhibit by Dr. W. P. Panckridge among the growers of fewer than 500 plants was also of much

more than average merit, and he also won the first prize in the extra class which required trebles of four varieties with another excellent set.

In the tyro's class Mrs. R. Biffen had a magnificent exhibit, and easily won the first prize. Her blooms of Ulrich Brunner and George Dickson were especially good.

The metropolitan classes were well contested, and showed that really good Roses may be grown within eight miles of Charing Cross. Mr. R. de Escotet, who is always successful at the City of London Rose Show, won the chief prize.

Class 72 was extra for amateurs generally, and here Dr. Pallett was decidedly first with a splendid board of twelve varieties, the blooms of Mildred Grant and Mrs. Theodore Roosevelt being magnificent.

The Hammond Prize, also open to amateurs generally, but for six blooms of new Roses, was also won by Dr. Pallett with remarkably fine blooms of such as Augustus Hartman and Colleen.

The Tea and Noisette Trophy and the Prince Memorial Prize were both won by Mr. A. Hill Gray with excellent exhibits. In the first his bloom of W. R. Smith was exceedingly beautiful, while of the twelve Teas White Maman Cochet and Maman Cochet were delightful.

Of the trebles of distinct varieties the best were also shown by Mr. A. Hill Gray, and here he had especially good trios of Auguste Comte and of W. R. Smith.

In the class for growers of fewer than 500 Teas and Noisettes, Mrs. Henry Balfour won the chief prize, and Dr. Lamplough was similarly successful among the growers of fewer than 200 Teas and Noisettes.

AMATEURS.—LADIES' ARTISTIC CLASSES.

For a basket of cut Roses lightly arranged, in Class 97, there were four exhibits. The exhibit gaining premier honours was made up of Irish Elegance and double Roses of kindred tones of colour, and was put up by Mrs. L. Colston Hale, Warminster. A very dainty little basket of Lady Ashtown secured second prize for Mrs. G. W. Cook, Whetstone, who had lovely flowers of this beautiful pink Rose deftly disposed. A basket of Irish Elegance, rather sparsely arranged, won third prize for Mrs. Oakley Fisher, Harrow.

There were no fewer than twelve entrants in the class for a vase of cut Roses lightly arranged with any Rose foliage, and the exhibits were pleasingly varied. The vase that gained the coveted first prize was shown by Mrs. Howard Williams, who set up lovely blooms of Mme. Melanie Souper and most appropriate foliage in a very attractive fashion. A rather formal arrangement gained second prize for Miss E. M. Robinson, Hornchurch, who used Irish Elegance exclusively. A really lovely vase of Irish Elegance and double Roses of kindred tones of colour gained third prize for Mrs. L. Colston Hale.

There were only four entries in the class for a decoration of cut Roses for a dinner-table, lightly arranged with Rose foliage only. First prize was won by Mrs. Oakley Fisher, Sudbury, Harrow, with a charming decoration of Irish Fireflame. Good use was made of the foliage, and a few more open flowers would have made this exhibit even more attractive. A beautiful decoration secured second honours for Mrs. Alex. Robinson, Carshalton, for a light arrangement of Irish Elegance. Third prize was won by Mrs. R. Allen Hope, Addlestone, Surrey, who also used Irish Elegance. A richly coloured table decoration won fourth prize for Mrs. A. D. Ruff, Sharnbrook, Beds, who used Irish Fireflame most effectively.

There were eight exhibits in the class for a table decoration, in which any Rose except single-flowered varieties was to be used, and these made a welcome feature of this show. First prize was won by Mrs. J. B. Langton, Hendon, N.W., in which this well-known exhibitor used Mme. Melanie Souper, Gustave Regis and Joseph Hill. In making a refined decoration, good use was made of Rose foliage. Second prize was awarded to a unique table decoration of Iona Herdman (McGredy), a lovely orange yellow Rose that is most effective. This exhibit came from Mrs. L. Colston Hale, who deserved a better position. Third prize was secured by Mrs. Alex. Robinson, who had a lovely colour scheme of Lady Pirrie, but the large flowers were used too freely. It was a handsome exhibit, however. A very dainty table of Melody secured fourth prize for Mrs. Courtenay Page, Enfield, and there were favourable comments on this display.

There were five vases of exhibition Roses, all very beautiful. A really lovely vase of Ophelia easily won first prize for Mrs. A. E. Brown, Reigate. The arrangement left nothing to be desired. A vase of crimson Roses secured second prize for Mrs. Sawday; and with a poorly arranged vase of Ophelia, Mrs. Courtenay Page was placed third. This exhibitor had a lovely series of blooms, and it was a pity she had not sufficient time to finish the arrangement.

Class 102 was for a bowl of cut Roses (decorative), open to lady members, and there were nine exhibitors. A refined bowl of Mrs. Herbert Stevens, with bronze growths of the Rose deftly disposed, won first prize for Mrs. Alex. Robinson; this exhibit was nicely finished. Second prize was awarded to Mrs. Sawday for a bowl of orange and buff Roses attractively set up. Third prize was secured by Mrs. J. Walter Smith, Bushey Heath, for a bowl of Irish Elegance that was somewhat crowded. A really good exhibit gained fourth prize for Mrs. Tisdall, Woodford Green, who had Lady Hillingdon splendidly set up.

No fewer than eleven vases of cut Roses were shown, making a fine display as a whole. Mrs. L. Colston Hale was placed first with a beautifully coloured arrangement of Irish Elegance and double Roses of a similar colour. With sprays of buds and fine growths, a pretty picture was made. Miss M. E. West, Reigate, won second prize with Mme. Abel Chatenay. The blooms were lightly arranged with bronze-coloured growths most effectively.

With Lady Hillingdon Mrs. Tisdall was a very easy third; as a matter of fact, this exhibit deserved a better award. Fourth prize was secured by Mrs. G. W. Cook, who had Molly Sharnan Crawford daintily arranged.

Five exhibits in Class 104, for a basket of cut Roses, found Mrs. L. Colston Hale leading with a richly coloured scheme of arrangement. Irish Fireflame predominated. A very beautiful basket of Liberty secured second honours for Mrs. A. E. Brown, Reigate. With bronze-coloured growths this richly coloured exhibit was most attractive. Soft tones of colour won third prize for Mrs. F. Peters, Wood, Weybridge. This was a bold arrangement of large flowers. Fourth prize was won by Mrs. Sawday with crimson flowers.

In Class 105, for six button-holes, there were seven entries. A nice series won first prize for Mrs. R. Pearce, Claygate. A very beautiful series was awarded second prize: this came from Mrs. R. Allen Hope, and was neatly finished. Third prize was awarded to Mrs. Courtenay Page, but the flowers were unduly large.

Six exhibits in the class for a bowl of wichuraiana Roses was not so good as usual. A lovely bowl of Francois Juranville won first prize for Mrs. R. Allen Hope, and was much admired. With Diabolo (single) Miss J. B. Langton was placed second, and third prize was secured by Mrs. Chaffley Giddins, South Mymms.

A bowl of decorative cut Roses was asked for in Class 108, and there were four exhibits. A pretty bowl of Irish Elegance set up by Miss Vesta Cook, Whetstone, was placed first, and deservedly so. With a bowl of Old Gold, Miss Cherry Courtenay Page, Enfield, was placed second, and a capital bowl of Irish Elegance set up by Mrs. Stafford Charles, Stanmore, was awarded third prize.

Four table decorations in Class 107, open only to lady amateurs, were a welcome feature in the decorative tent. A very showy table of Irish Elegance was daintily set up by Miss Vesta Cook, gaining the first prize quite easily. With Old Gold, Miss Cherry Courtenay Page was second. A lovely table of Mme. Ravary that deserved a better position was placed third. This was shown by Mrs. Stafford Charles. The freshness and beauty of this exhibit were quite pronounced.

THE HOLLAND HOUSE SHOW.

THE great summer exhibition of the Royal Horticultural Society, held by kind permission of Mary Countess of Ilchester in the grounds of Holland House on the 6th, 7th and 8th inst., proved a great success. Although not quite so large or comprehensive as in some former years, the quality throughout was good, and reflected great credit on the exhibitors.

SWEET PEAS.

If the Holland House Sweet Pea exhibits were any criterion, we may assuredly expect to see a remarkable display at the National Sweet Pea Society's Show next week. One may safely hazard that at no previous Royal Horticultural Society's Summer Show has there been a finer Sweet Pea display than on this occasion. In not a few instances the exhibits were remarkable, not only for quantity, but for quality, high colour and effective staging. In almost every instance the flowers were of the exhibition type, which goes to prove that however much one may dislike the super-exhibition methods of culture, it is incumbent upon exhibitors to grow their plants on the one, two or three stem principle, otherwise there is little hope of attracting the attention of either judges or the general public.

Not the least important exhibit was that of Messrs. J. K. King and Co., Coggeshall. Strength of stem and size of flower were noticeable feat res, while the staging was effectively carried out. Arches covered with blooms formed a background for the splendid vases in the foreground. Particularly notable varieties were King White, Lavender G. Herbert, Czarina Spencer, Charles Foster, King Manoel, Anglian Fairy, Walter P. Wright, Scarlet Emperor and Royal Purple.

Two hundred square feet were covered by Messrs. Alex. Dickson and Sons, Newtownards. Backed by black velvet, which, by the way, seemed to be an accessory adopted by most firms, the tall pillars and effectively set-up vases showed up to perfection. Some of the flowers were, perhaps, on the coarse side; but, taken as a whole, the quality was superb. Fiery Cross and The President were two as yet undiscovered varieties that stood out most strongly. Hawmark Gladys was easily among the leading cream pinks. Royal Purple, Elsie Herbert, Mrs. Damerum (a new cream), John Ingham (still unbeaten), Mrs. J. Balmer (a very pretty fancy), Blue Picotee, Wedgwood and King White were a few of the many good things shown.

Messrs. Hobbies, Limited, Derham, had a very effective display. Dispensing with pillars, the firm mounted the vases on tall rods in the rear, while the remaining spaces were filled with well-arranged vases. Several seedlings, obviously of the Mrs. Hugh Wormald type, were shown; but a few other telling varieties noted as we hurriedly passed along were Lavender G. Herbert, Rosabelle, King Manoel (which, by the way, seems to have displaced nearly all other maroons), Hercules and R. F. Felton.

We are so used to the magnificent displays of Messrs. Dobbie and Co., Edinburgh, that nothing they set up nowadays surprises us. Vividity of colour is always a strong point, and, coupled with most skilful staging, one perhaps gets at the real explanation of Messrs. Dobbie

and Co.'s phenomenal displays. Others may have stronger and longer stems, but stems do not count for everything. The Scottish firm's dominating position was due largely to the foregoing features. A few of the varieties exhibited are hereunder mentioned, but they were not picked out because of their super-excellence. Dobbie's Orange, Jean Ireland (easily the finest cream-ground picotee yet exhibited, and as shown it confounded those experts who last season opined it to be Mrs. C. Breadmore over again), Miss Burnie (the new blush white), Margaret Fife (a fine rich blue), Hercules (in gnat form), Royal Purple, Old Rose (a really delightful new variety), Dobbie's Cream, Henry Ohn and New Marquis. It is worth mentioning, perhaps, that the light in the tents was most deceptive. When one was considering Sweet Peas, bright blues became greyish mauve, and rich rose shades took on a salmon tint.

Messrs. G. Stark and Sons, Great Ryburgh, had a pretty little stand. Purely field-grown blooms were shown, but while lacking in stem, the flowers were large and highly coloured. Nearly all the varieties shown were the firm's own special stocks or seedlings, and of the latter quite a number were shown, several of them of the Duplex type. Pathfinder (a fine salmon rose), Fair Maid Improved, Lord Northcliffe, Mrs. H. Williams and many others were also shown, the centre of the stand being filled with the new perpetual-flowered Tritomas.

Very good quality was noticed on the stand of Mr. James Box, Lindfield. No elaborate staging nor startling novelties were shown, but all the most popular varieties were to be seen. An Improved Dorothy struck one as a first-class mauve, and other good flowers were Mrs. Gibbs Box, James Box, Scarlet Empress, Orange Perfection, Prince George, Charles Foster and King White.

A neat little display was also put up by Messrs. Jarman and Co., Chard. Mrs. Townsend was in very good form, while Elsie Herbert, King Manoel, Hercules and Mark's Tey were others that caught the eye.

Robert Sydenham, Limited, Birmingham, were well represented by a comprehensive though not extensively large collection. Several novelties were shown, including Lord Fisher (a fine maroon), Mrs. A. G. Gentle (white, flushed rose pink) and Mrs. Acombe (white, heavily flushed lilac). Other varieties that were very well shown were Edith Taylor, Norvic, Princess Mary, Lady Evelyn Eyre, Lillian and Maud Holmes.

Considering the fact that all his blooms were culled from ordinary seed rows, Mr. J. Stevenson, Wimborne, made an excellent display. Money-maker, Golden Glory, Honor Bright, Peace (a new deep cream pink), Warrior (a promising red maroon), Scarlet Emperor and Hercules were a few of the varieties on view.

Messrs. E. W. King and Co., Coggeshall, had a very effective display. A central mound topped by a tall pillar was surrounded by outer pillars, which were connected to the centre by arches, tastefully furnished. This highly decorative exhibit was interesting, inasmuch that, apart from all the popular Anglian varieties and others, such as Hercules, King Manoel, &c., there were also several new seedlings, including the cream-ground Mrs. Cuthbertson, a new and true stock of that troublesome yet beautiful variety Audrey Crier, and Miss Burnie, or, rather, a seedling that to all appearances was this as yet undiscovered blush white.

Few, if any, ventured to stage so many varieties as Messrs. S. Bide and Sons, Farnham, who made a splendid display in the Orchid tent. Well set up and carried right up to the roof, this exhibit was highly attractive. A few of the many varieties on view were Empress Eugénie, Edward Cowdy, Royal Purple, Zillah Smith, Morning Mist, Mrs. J. Balmer, Violet Crabbe, Ruth Bide, Dick Bide, Robert Sydenham and King White. Generally speaking, this collection embraced practically all the season's novelties and most of the popular favourites.

A remarkably fine exhibit was that staged by the Right Hon. Lord North, Banbury (gardener, Mr. E. R. Jones). Despite the enormous strength of the stems, the flowers were by no means coarse, and we may safely hazard that no finer private exhibit has ever been staged at a Royal Horticultural Society's Show. Many of the latest varieties were shown, together with a great number of the older favourites. A most striking collection, and from all appearances Mr. Jones is proving himself a worthy pupil of the older exhibitors who have in the past shown the road that leads to success.

HERBACEOUS PLANTS.

These were shown in their highest beauty and excellence, and just as we look for—and are never disappointed—extensive exhibits of rock gardens and the choice alpine at the great spring show of the society held each year in the Hospital Grounds at Chelsea, so do we expect a great gathering of the finer herbaceous plants at the summer exhibition held in the grounds of Holland House. To this department alone some three dozen or so firms from all parts of the country contributed, not small or makeshift groups—some, indeed, excelled all previous efforts—but such as might be termed thoroughly representative.

Far and away the finest thing of its kind in the exhibition was the combined terrace and water garden arrangement by Messrs. R. Wallace and Co., Colchester, with which was associated imposing groupings of Japanese Irises, Lilies, Eremuri, a right royal feast of the newest and choicest Water Lilies, and much besides. Each of these practically constituted a show alone, the wealth of blossom, contrasting here and harmonising there, emphasising the masterly art which had so well conceived it all and so admirably carried it into effect. The central feature was of Japanese Irises, huge waving blossoms of dinner-plate dimensions in blue, white, rose, pink, violet and other shades to the water's edge from a foil of Bamboos, Grasses and light material. On the

immediate right was the terrace garden, ideally executed and suggestive. Then followed a wealth of Eremuri such as has never before been seen, hybrids all, save such as Sheldford and the giant forms of Bungei (raised from the last named) and the white-flowered Olga. Of these alone, springing from a setting of Ferns and Funkias, there were some 200 spikes—White Queen, Primrose Queen, Rose Queen, with Bungei superbus, B. pallidus, and others of orange, bronze, &c. So fine, indeed, were these Eremuri that Sir Harry Veitch, who presided at the Press luncheon the day before the opening, selected them for special remark, and certainly nothing in this great exhibition merited it more. A fine set alone and of the highest garden value, it represents a great work among these indispensable summer flowers, whose towering spires afford new pictures in garden scenery. Nor can we omit the beauty of the Water Lilies, such as Attraction (rich red), Moorei (yellow and rose), Formosa (rose, with crimson picotee edge), Escarboucle (superb crimson), Mrs. Richmond (rose pink) and William Falconer (deepest crimson). Lilies, Delphiniums, Calochorti and much more contributed their quota of beauty and interest to one of the most imposing arrangements we have seen.

In another direction Mr. Amos Perry, Enfield, contributed a group of hardy Ferns, Larkspurs and Lilies of exceptional merit, the latter quite a strong feature of the group. Of these the outstanding kind was Amos Perry, which has resulted from crossing L. Humboldtii and L. Parryi. It is of rich orange yellow colour, of large size and copiously spotted crimson; in all probability the finest hybrid Lily for many years. Other good Lilies were Roezli (of which there was a magnificent group), L. pardalinum Johnstoni, L. Parryi (rich golden), L. Grayi, L. regale, L. columbianum, L. Martagon dalmaticum, L. parvum luteum and L. canadense. Of L. parvum luteum several spikes were carrying upwards of forty flowers. Some good Larkspurs were Queen Mary (sky blue), Lily A. Henslow (dark), La France (mauve) and Rev. E. Lascelles (of which there was a handsome group). Some hundred varieties of hardy Ferns occupied a central place.

In an adjoining tent Messrs. H. J. Jones, Limited, Lewisham, set up a magnificent exhibit of herbaceous Phloxes, the pot-grown examples being staged in the finest condition. In addition to the plants, which were very numerous, were some hundreds of cut spikes arranged in the background, the whole constituting quite a sumptuous feast of these early summer flowers. The following were good and distinct: Mrs. Alder (new, pearl pink), Goliath (salmon red), G. A. Stroheim (scarlet), Dr. Charcot (lilac), Selma (delicate pink), Elizabeth Campbell (pink, white eye), F. A. Buchner (white) and Baron von Dedem (brilliant scarlet). Canterbury Bells of many lovely shades and with giant cup-and-saucer flowers were also on view.

Mr. R. C. Nuttall, Woodbridge, had a fine showing of Delphiniums, of which Rev. E. Lascelles, Mrs. R. C. Nuttall, Mrs. Brewster (metallic rose) and Prince Henry (purplish plum, white eye) were a few. Cut Roses in great variety were also shown. Of more than ordinary interest were two fine groups of Statice Suworowi (pink) and S. S. alba, the peculiar inflorescences of these affording quite a picturesque effect.

A showy group from Mr. G. W. Miller, Wisbech, included several towering spikes of Lilium giganteum, together with a superb lot of L. pardalinum and such fine Delphiniums as Rev. E. Lascelles, King of Delphiniums, Chaucer (deep blue), Princess Mary (azure, white eye), Gloriosa (rosy mauve) and Alake (the best deep plum purple).

Messrs. W. H. Cutbush and Son, Highgate, had a superb showing of Lilium Humboldtii magnifica, staging two fine groups of this handsome form. In addition was the pretty L. Grayi, with Delphiniums, Scabiosa, Astilbes, a lovely lot of Water Lilies in a low-placed streamlet, and many choice water-side and other plants. Iris ochroleuca was very fine.

Messrs. W. J. Godfrey and Son's (Exmouth) exhibit contained a rich array of herbaceous Phloxes, together with an excellent strain of Scabiosa caucasica, the fine Delphinium Star of Devon and others, and a particularly choice lot of the Exmouth strain of Canterbury Bells of the cup-and-saucer section. The mauve, rose, pink and light blue tones of these, in addition to handsome pyramids of blossoms, made a particularly fine show.

Messrs. Whitelegg and Page, Chislehurst, staged a sumptuous group of herbaceous cut flowers and plants, flanked at either end with Roses and the "New Berry." The former were chiefly Delphiniums in variety, Romneya Coulteri, fine groupings of Gaillardia Lady Rolleston (self yellow), Ourisia coccinea, Eriogonum speciosa, &c. Arendsi (rose and white), Verbena chamædrysoides (scarlet) and Gentiana Przewalskyi (rich deep blue).

Messrs. Thompson and Charman, Bushey, showed Delphiniums very finely, Thalictrum dipterocarpum, a lovely lot of Water Lilies, as Nymphaea Marliacea carnea, N. M. chromatella, N. gladstoneana, N. Laydekeri purpurea and others.

Messrs. A. A. Walters and Son, Bath, the raisers of that unique Delphinium Rev. E. Lascelles, displayed that variety in fine style, with, in addition, Gaillardias, Phloxes, Lychnis chalcedonica and a variety of Chrysanthemum maximum.

At the end of Tent No. 2 Messrs. Kelway and Son, Langport, arranged a selection of the choicest Delphiniums, rich and varied in colour, handsome in spike and fine in flower. A few of those of outstanding merit were Bayard (rich plum), Ragged Robin (light blue), Sir Edward Fry (azure and purple), Dusky Monarch (reddish purple, dark eye), Monarch of All (rich purple) and Drake (a superb sky blue, and probably the finest of all).

THE GARDEN.

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JULY 17, 1915.

NOTES OF THE WEEK.

The Royal Horticultural Society's War Relief Fund.—We understand that the Royal Horticultural Society will be pleased to send a supply of their Letters of Appeal for promises of subscriptions to the War Horticultural Relief Fund to horticultural societies holding flower shows during the next month or so, in order that they may be issued with the show schedules or circulated in the show grounds. Will those able to help in this way kindly make application to the Secretary, Royal Horticultural Society, Vincent Square, Westminster, London, S.W., stating the number of copies they wish sent?

Seedsmen in the British Army.—Messrs. Sutton and Sons inform us that the number of their staff who have now joined His Majesty's Forces is 104. Of these we regret to say that two have been killed and three wounded. Mr. E. M. Medlicott has been promoted second lieutenant in the 9th Royal Berks Regiment, and Mr. R. Haigh second lieutenant in the 1st Royal Berks.

Rose Arthur R. Goodwin.—In our issue for July 3 we referred to this charming Rose growing in standard form. An artist friend has since sent the photograph reproduced on this page, which represents a bed of this Rose in the Royal Gardens, Kew. The illustration depicts the suitability of Arthur R. Goodwin for this method of cultivation, the thin carpeting of white Violas effectively clothing the soil beneath the trees.

Scarlet and White in the Border.—One of the most effective displays we have seen lately in a herbaceous border was a good group of *Lychnis chalcedonica* intermixed with *Achillea Ptarmica*. The Pearl. The brilliant scarlet heads of the *Lychnis* stood just above the graceful sprays of the *Achillea*, with beautiful effect, suggesting two suitable subjects for a large bed.

A Beautiful Hybrid Rock Rose.—The name *Cistus cyprius* suggests that the subject of this note is a native of Cyprus, but present-day authorities incline to the belief that it is a hybrid between *C. ladaniferus* and *C. laurifolius*. The large white flowers, 3 inches across, with a crimson blotch at the base of each petal, suggest *C. ladaniferus*, while the clusters of flowers and leaves

more resemble *C. laurifolius*. For hot, sunny borders and banks of light soil, masses of this Rock Rose are a beautiful sight in June and July. When not in flower *C. cyprius* is a pleasing evergreen, and hardier than most of the Rock Roses.

Lieutenant Bayley Balfour Killed in Action.

It is with regret that we are informed of the death in action on June 28 at the Dardanelles of Lieutenant Bayley Balfour, the only son of Professor Isaac Bayley Balfour, Regius Keeper of the Royal Botanic Gardens, Edinburgh, and of Mrs. Balfour. Lieutenant Bayley Balfour was twenty-five years of age, and was gazetted to the Army in January last as an officer of the 14th

was in his thirty-eighth year, and was a civil engineer by profession. He was highly esteemed by all who knew him, and was much respected for his thoroughness and uprightness of character.

Mr. George Forrest on Alpines in Yunnan.—At the Royal Horticultural Society's fortnightly meeting on Tuesday next, Mr. George Forrest, the famous traveller and plant collector, is to give an exhibition of lantern slides of a number of the finer alpine plants which he saw in Yunnan and photographed where he found them growing in their native homes. At the same time he will deliver a lecture, when it is his intention to enlarge upon the peculiarities of each and their possibilities under cultivation.

The Washington Thorn.

One of the first Thorns introduced, 1738 being given as the year, *Crataegus cordata* is a most distinct and useful species. Its most valuable character is the flowering season, which is the end of June and early in July, at which time all the well-known Thorns are over. Freely borne in terminal and axillary corymbs, the creamy white flowers are scarcely half an inch in diameter. These are followed by scarlet fruits in the autumn. As a lawn specimen the Washington Thorn forms a pleasing, round-headed tree of moderate height. It is a native of the Eastern United States and may be readily raised from seeds, which ripen freely on the trees in the winter.

New versus Old Potatoes.

The President of the Board of Agriculture and Fisheries desires to call attention to the fact that there is a considerable supply of last year's crop of Potatoes

remaining unconsumed. At this season there is a general demand for new Potatoes, and these—although they are undersized because of the dry weather, are already being disposed of in great quantities. This is a waste of the national resources, since most of the new Potatoes if left in the ground would increase considerably in weight. Consumers are therefore urged to make use of the remainder of last year's Potato crop before making large demands upon the new one. As suggested in our last issue, it would be even better to plant the old Potatoes at once where ground is available.



ROSE ARTHUR R. GOODWIN AS A STANDARD WITH WHITE VIOLAS CARPETING THE GROUND.

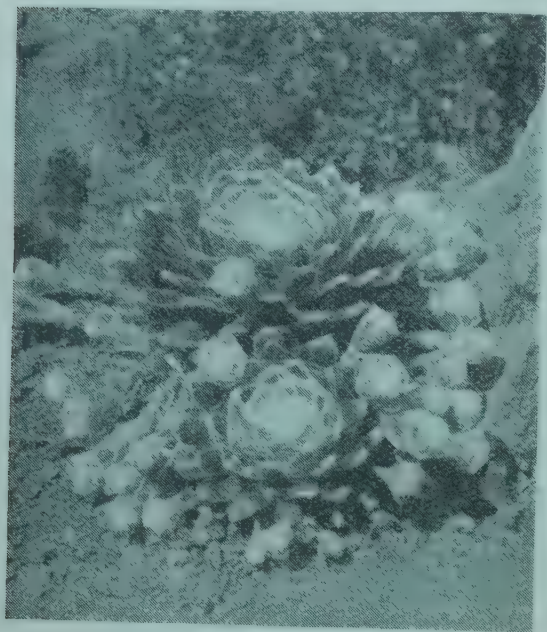
Royal Scots. He was attached to the 1st King's Own Scottish Borderers. Lieutenant Bayley Balfour was a young man of high promise, and a general favourite. Deep sympathy will be felt for Professor and Mrs. Balfour in their severe trial.

The Late Captain Whitton.—We also have to record the death in action at the Dardanelles on June 28 of Captain Peter I. Whitton, the only son of Mr. James Whitton, V.M.H., Superintendent of Glasgow Parks, and of Mrs. Whitton. Captain Whitton, who was married and leaves a widow and one child, to whom, with his parents, our readers will extend their sincere sympathy,

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

A Cobweb Houseleek.—The enclosed photograph may be of sufficient interest to reproduce in THE GARDEN. *Sempervivum arachnoideum*



ONE OF THE COBWEB HOUSELEEKs GROWING IN A READER'S GARDEN.

Laggeri giganteum is not as common in gardens as it deserves to be, for the rockery certainly contains no more interesting or handsome plant. The large rosette shown in the photograph measures nearly 2½ inches in diameter, and is beautifully clothed with the cobweb threads so characteristic of the species. Like most members of the genus, it is easily grown, and thrives in medium soil containing a large proportion of grit. Full sun is, however, essential, or the leaves lose their dark red colour.—NORMAN BOOTHROYD, *Holmleigh, Bailey.*

A Recipe for Bottling Peas.—The Peas must be gathered while young. Choose those of a good cooking variety, shell them, and immediately throw them into boiling water to which some salt has been added. Allow the Peas to boil two minutes, then strain, and fill the bottles with the Peas and the water in which they were boiled. Place the glass stoppers loosely on the bottles, then stand them in the steriliser, the water in which should be warm, gradually bring to the boil, and allow them to boil for five minutes. Take out the bottles and screw down quickly.—(Mrs.) E. BECKETT.

Stone Edgings to Pathway.—The photograph reproduced on page 312, issue June 26, of a stone path and rock plants reminds me of some similar in Lancashire, where stones and stone slabs are largely used in gardens. Many of the stones there are grey and weathered in appearance when first put down, and give one the impression that they have been in that particular position for many years. The majority of the border and rock plants, I noticed, seemed to like the stone edgings, as they grew remarkably well and soon spread over them. The general effect is enhanced when, at intervals of a few feet, the stones are so arranged as to form a small rockery encroaching on the border itself, with suitable subjects planted among them. I have used them also in a formal

manner to enclose a narrow border a foot wide under large trees, the drip from which soon spoiled grass and many other edgings; but Ivy, planted and pegged down between the stones arranged as before stated, was a great success.—G. G.

White Sun Roses Growing Wild.—When visiting Weston about a fortnight ago, I spent a day on Brean Down, a peninsula which juts out to the west. On the north side were thousands of clumps of Cowslips, which evidently had flowered well earlier in the season. Just going over, in a sort of dell, were lovely wild Hyacinths, and among them a bright pink Campion, with one or two paler specimens. The Bracken was just appearing. On the rocks at the western point were lovely tufts of pink Thrift, which crept along gradually, getting less towards the south side. Here was the greatest surprise of all, for above the rocks on the stony slopes were masses and masses of white *Helianthemum*, or Sun Rose, with large flowers and grey foliage. There was also one plant of a pale cream colour. Among the white were clumps of yellow *Stonecrop*. The whole was a perfect natural rock garden shining in the sun.—RUTH B. CANNON, *Painswick, Gloucestershire.*

Myosotidium nobile in Somerset.—I enclose a photograph of *Myosotidium nobile*, which may be of interest to your readers. I think it the finest plant of the Forget-me-not tribe. This plant was put in on February 10, 1914, with only three small leaves. The photograph was taken fifteen months later, on May 10, 1915. It grows in partial shade. During the winter it withstood frosts of 8°, 10° and 12°. Twelve feet from it I have a small pond which had over an inch of ice on it. The plant is now covered with large seed-pods, which I hope will ripen.—J. D. A., *Somerset.*

Home-Made Ointments, Soap and Perfumes.—With reference to the question raised by "M. H." in the issue of THE GARDEN for June 19, page 300, on "Home-made Ointments, Soap and Perfumes," She will find a large amount of information in

the fifth edition of "*Piesse's Art of Perfumery*," written by a member of the well-known firm of Piesse and Lubin, formerly of New Bond Street, now of 28, South Molton Street, London, by whom the book is published. I cannot state the price of the book, but it is a thickish volume, and, as stated on the title page, it gives "instruction for the manufacture of perfumes for the handkerchief, scented powders, odorous vinegars and salts, snuff, dentifrices, cosmetics, perfumed soap, &c." With regard to preparations of a medicinal character, some information may be obtained from Barton and Castle's "*British Flora Medica*," a new edition of which I revised in 1877, and was published by Messrs: Chatto and Windus.—JOHN R. JACKSON.

Lilium candidum : A Note from the Fighting Line.—This year my garden knows me not, and what that privation means to me all gardeners will understand. I have to content myself with the gardening papers, and in your issue of July 3 I read with interest the article by "Scientist" on the Lily disease. In this he expressed the hope that those who have had experience in growing the white Lily in chalky soil would give their opinions. It happens that during the last few weeks I have been in a part of our line where the soil is exceedingly chalky, and I have been particularly struck by the healthy appearance of the many clumps of *Lilium candidum* that I have seen. In the garden of an evacuated and much-knocked-about house, where I was quartered for several days, the soil was more chalky than I had ever seen anywhere in my life, and there, among a tangle of weeds, red Poppies and Cornflowers, were the finest white Lilies of all. The foliage was perfectly healthy, and showed no sign of *Botrytis cinerea*.—H. V. WARRENDER, *British Expeditionary Force, France.* [We thank our esteemed correspondent for his interesting letter, and hope he may soon return safely to his garden and the flowers that he loves.—ED.]

The Second Flowering of Pyrethrums.—If, instead of allowing Pyrethrums to weaken themselves by permitting old flowers to remain longer



MYOSOTIDIUM NOBILE GROWING IN A SOMERSET GARDEN. THE FLOWERS ARE BLUE.

than necessary, one will remove them and give the plants an impetus by mulching with manure, it will be found that a second crop of bloom will follow, perhaps a little inferior to the first, but very useful to those who desire variety in cut blossoms. Particularly are the flowers of the single varieties useful for table decorations, and any plan to ensure a further instalment of blossoms should be remembered. In a dry time Pyrethrums need copious supplies of water, and this duty should not be relaxed after the first bloom if a second crop is desired.—W. LINDERS LEA.

Elderflower Wine or Frontignac.—I see there is an enquiry in *THE GARDEN*, page 312, issue June 26th, for a recipe for Elderflower wine. I have one in an old recipe book belonging to my mother. I know nothing about it, but all the recipes in the book which I have tested are very good ones, so I am sending it for your correspondent. "To six gallons of water add 18lb. of lump sugar. Boil it half an hour, and when new-milk warm put to it five pints of Elderflowers (picked clean from the stalks), the juice and rinds of six Lemons, 6lb. of raisins (cut small); add five tablespoonfuls of new yeast, work it four days, stirring it twice a day; then put it into the cask with half an ounce of isinglass dissolved in a little of the liquor, and close it well up. In about six weeks the wine will be ready to bottle. It must be strained before it is put into the cask. The flowers should be used the same day as they are gathered, otherwise they will lose their colour."—GERTRUDE WELBY.

—In reply to "Anne Amateur," I enclose a recipe taken from a manuscript book of my mother's. If the wine I had when a young man was made from this recipe, as I imagine it was, I can testify to its being extremely good, and like sparkling Moselle. (I have some raisin wine now which was made more than sixty-five years ago.) "Boil 18lb. of white sugar in six gallons of water and two whites of eggs. Skim it, and shortly before taking off the fire put in a quarter of a peck of Elderflowers. When cool, stir it and put in six spoonfuls of lemon juice and three or four spoonfuls of yeast; beat well into the liquor and stir it well every day. The third day tun it, putting 6lb. of raisins into the cask. Stop it close and bottle in six months." Another similar recipe says it should be made from the tree which bears white berries.—T. W.

An Old-Time Recipe for Making Pot-Pourri. The gentle art of making pot-pourri requires far more care than might at first be considered necessary. The writer is acquainted with an old lady whose one great joy in life seems to be the making of pot-pourri, which gives her rooms a delicious fragrance when the covers are removed from old urns and Chinese jars containing the Rose petals. For many years this lady has followed, almost to the letter, the following recipe, taken from "A White-Paper Garden," by S. A. Shafer: "Gather the Roses on a fair, clear morning after the dews have dried. Take them into the spare chamber, on the floor of which fresh linen sheets have been spread. Crumble the petals gently from the hearts of the Roses, and sprinkle the sheets thickly with them. Open the window towards the sun until evening. The next day the leaves will be so withered that what filled two sheets may now be spread on one, and freshly gathered Rose petals may be strewn on the empty spaces. On the third morning the leaves will be still more dried, so that you may gather up the first day's Roses and place them in an

empty basket. Stir occasionally, and every day add to them the petals dried to the proper texture. When all are dried, prepare a bowl of sweet spices, which shall contain small bits of dried Orange and Lemon peel, sticks of Cinnamon and buds of Allspice, Cloves and Cassia, bruised. Add a Tonga Bean cut into fine shreds, and much violet-smelling Orris-root, well grated. A grain of Musk is liked by some, and amid so many divine perfumes is not obtrusive. Of handfuls of Lavender be not sparing, nor of the sweet leaves of Rose, Geranium, and of dried sprigs of Citronella as much as you may. Now into your Chinese jars or old painted French urns place Rose leaves and spices alternately until they are lightly full. Put on the covers, which are to be removed when the room needs refreshing."—MEMORY.

A Miniature Moraine.—It may interest your readers to hear of a miniature moraine garden of a novel type, which brings a tiny glimpse of alpine loveliness within the reach of everybody. Like the window-sill garden of which I wrote to you half a dozen years ago, and which is still as flourishing as ever, this can be enjoyed by even those who have no plot of garden ground. A balcony, a yard or a flight of outdoor steps would give the only accommodation needed. Three years ago two chimney-pots were removed from this house, pots of the common type, in which a short cylinder springs from a rectangular base. I was struck with the idea of using them in a reversed position as a receptacle for alpine. Each forms an oblong trough of red earthenware, pleasantly weathered, the inside measurements 14 inches by 10 inches, standing some 14 inches from the ground, and so raising the contents conveniently nearer to the eye. I obtained a small quantity of chips and sweepings from a stonemason's yard, and with the coarser portion the cylindrical base was first filled to afford ample drainage. Then came a thin layer of freshly cut turf, and above this the square trough was filled with the usual moraine mixture of stone chips, silver sand, a little loam and peat. In this I planted alpine of a thoroughly sun-loving character, chiefly Sedums and Saxifrages straight from the Swiss mountains, placing among them a few rough pieces of mountain stone. After three years the surface of each little moraine is completely covered. There are fine cushions of Encrusted Saxifrages with graceful white spires. A tussock of the Cobweb Houseleek shows ten spikes of crimson bloom, and *Sempervivum montanum*, seventeen. The front is draped with an overflow of trailing Sedums, covered with milky white and golden flowers. Doubtless many other species of alpine might be made equally happy. These little gardens are watered perhaps once or twice during a prolonged summer drought, and each is covered through the winter with a single pane of glass. The result of such little trouble and expense is at the present moment a charming picture of varied colour, and throughout the year an object of unfailing interest and beauty.—M. KENNY, *Cambridge*.

FORTHCOMING EVENTS.

July 20.—Royal Horticultural Society. Exhibition of Flowers, Plants, &c., 1 p.m. to 6 p.m. Royal Horticultural Hall, Vincent Square, Westminster.

July 22.—Carnation and Picotee Show, 1 p.m. to 6 p.m. Royal Horticultural Hall, Vincent Square, Westminster.

ROCK PLANTS ON WALLS.

SOME weeks ago there were letters in *THE GARDEN* respecting rock plants, and some mention was made as to their growth on walls. Perhaps my experience as an amateur may interest readers. I moved to my present house at Michaelmas, 1913, and decided I would grow as many rock plants as the small villa garden allowed. The garden was in a very rough state, and my first work was to put two men to root up everything and burn it. Nothing was spared.

On the east side the neighbouring garden is on higher ground, so I built a rock retaining wall to the border against that fence, which is about 26 yards long by 2 feet high, and is built of sandstone. At the end of the garden is an island bed 21 feet long by 9 feet wide at one end, tapering to 2 feet at the other and 2 feet high, and built of sandstone. A half tub is sunk on this and filled with water, and another in a corner is surrounded by Ferns—such as *Osmunda*, *Beech*, *Oak*, *Male* and *Hart's-tongue*, and *Adiantum cuneatum*—*Primula japonica* and *Scillas*. At the back of the long border I have planted *Phloxes*, *Michaelmas Daisies*, *Delphiniums* and similar plants; and on the front are my rock plants, in some cases trailing down the face, and in others in crevices and pockets. The garden is sheltered by a high wall on the north (covered by *Roses*), so is fairly warm. The house screens the sun somewhat from the west, but it is open to the south, and on the east my neighbour has a fence and a row of pollarded trees.

I have been more successful than perhaps I deserve in getting a good display of colour lasting over many months. Among some of my plants are *Daphnes Cneorum* and *Mezereum*; *Campanulas muralis*, *garganica* (which I find likes squeezing between rocks), *carpatica* (blue and white), *isophylla*, *pumila* (blue and white, which ramps, but I have not the heart to stop it) and *pulla*; *Saxifragas aizoides*, *Clibranii*, *Cotyledon cuneifolia*, *sancta* (which is a shy flowerer with me), *hypnoides*, *Rhei*, *Guildford Seedling*, *scardica*, *lingulata*, *Bellardii*, *labradorica* (? given me as such), *incurvifolia* (sold me as such, but not to be found in books), *Carl King*, *Aizoon rosea*, *decipiens grandiflora*, *longifolia*, *Cherry Trees*, *Wallacei* and *burseriana*. These have all flowered this year. Then I have the following *Primulas*, viz., *Auricula*, *cashmeriana*, *japonica*, *sikkimensis* (which dies in winter if it gets too wet, it seems), *denticulata*, *cortusoides*, *rosea*, *farinosa* (grown from seed), *capitata* (just coming into flower), *pulverulenta*, *frondosa*, *Sieboldii*, *hirsuta* (flowered last year, but not this) and a white one I think must be *nivalis*.

Then I have two patches of *Gentiana verna*, which have flowered gloriously and have constant care as to watering and top-dressing; *Androsaces lanuginosa*, *Chumbyii* and *sarmentosa*; many *Dianthi*, including *alpinus*, *neglectus* and *Cheddar Pink* (which I can only succeed with if squeezed in a chink).

The usual rock plants, such as *Aubrietia*, *Alyssum*, *Helianthemum* and *Cistus*, I, of course, have. *Myosotis rupicola* I lost, but *M. Rheistonii* is increasing. I mention the names to show a few only of the plants I am growing on my short length of rockwork and with only the experience I am daily gathering, which teaches one how really ignorant I am of the habits of my treasures.

The interest lies in discovering the natural likings of the individual plant, and not in coddling

it. Anyone who has the luck, for instance, to obtain a good flowering patch of *Gentiana verna* is well repaid for any trouble. Surely it is better to grow in a small patch of a town garden 154 different varieties of rock plants, flowering practically throughout the year, than the few herbaceous plants it would be only possible to get into the space.

Dorking.

ENTHUSIAST.

RAISING FUCHSIAS FROM SEEDS.

I HAVE more than once called attention in the pages of *THE GARDEN* to the great interest attached to the raising of seedling Fuchsias. Where this is intended to be followed, the best season for the pollination of the flower is now with us; hence this note. I have always found that from flowers fertilised in early summer not nearly so many good seeds are obtained as if the operation is carried out in July and in the first half of August.

As the organs of generation in the Fuchsia are very conspicuous, and the pollen is not shed nor the stigma in a receptive mood till at least a day after the flowers expand, there is no difficulty in effecting the crossing of different kinds.

Whether it will be successful, however, is quite a different matter, for although the berries may attain a good size and ripen thoroughly, it frequently happens that they do not contain a single fertile seed. Some very promising varieties have with me always proved to be barren, and that is also the experience of other raisers. The late Mr. Thomas Todman, an old-time successful raiser, who induced me to take up the raising of seedling Fuchsias, told me that such was his experience, and advised me that once I had a good seed-bearer, on no account to part with it. He quoted, for instance, a seedling of his own whose flowers were too poor to render it of any value from that standpoint. It, however, produced plenty of seeds, and from them several good and dissimilar varieties were raised. Strange to say, these were all remarkably shy in seed-bearing.

As far as my experience extends, it is useless to attempt to cross those varieties having white tubs and sepals with either the dark flowers or those with white corollas. Still, some day this may be accomplished, for in proof of the uncertainty that prevails in such matters, I may mention that for years the various raisers attempted to cross the varieties having white corollas with the dark kinds. For a long time this was unsuccessful; then all at once the stumbling-block seemed to disappear, and raisers experienced no further trouble in that direction. During the last two decades this cross has proved to be the most prolific in fertile seeds of any that I have carried out.

Though I have already mentioned that large and promising berries are frequently devoid of fertile seeds, there is another caution to be given to the raiser; this is that no disappointment must be felt if nothing of particular merit is the result. The pleasures of anticipation are worth something, and the great variety to be found even among the occupants of the same berry are very interesting, and furnishes ample food for reflection.

As the season advances and the berries ripen, great care must be exercised in gathering them. Some of the varieties change colour long before they are ripe, and in order to prevent a mistake in gathering an immature fruit and thus throwing away all chance of fertile seeds, I, whenever possible, prefer to let the berries drop, or at all

easy matter, as there is no difficulty in distinguishing between them and the abortive ones. If transferred from the point of the knife to a piece of blotting-paper, the seeds will soon dry.

I prefer to keep the seeds till the middle of February, when they are sown in well-drained pots in a mixture of loam, leaf-mould and sand. In a temperature of 55° to 65° the seeds will soon germinate, and the young plants with care grow away freely. In order to learn something of the natural habit of the plant, it is as well not to stop them at all. Many of them will flower towards the end of the first season, but it is only in the second year that their merits can be fully determined. As several varieties of my raising are now in general cultivation, I may claim a certain amount of success in this direction.

H. P.



THE NEW DAY LILY, *HEMEROCALLIS GOLDEN BELL*, SHOWN BY MESSRS. R. WALLACE AT HOLLAND HOUSE. (See page 354.)

events to remain until the stems shrivel. When this takes place, it is evident that all connection is cut off from the plant, and the fruit will derive no further nourishment therefrom.

In the case of many seeds that are embedded in pulp, a practice often followed is to rub up the berries with some dry silver sand and pick out the seeds therefrom. I tried this, but found that owing to the small number of fertile seeds it was a very tedious process, and a few precious seeds might easily be overlooked. After this the method adopted was to cut open the berries when they were quite ripe, and pick out the perfect seeds with the point of a penknife. They being, as a rule, but very few in number, this is a very

THE LONG-SPURRED AQUILEGIA IN SCOTLAND.

NO other early summer flower can quite compare with the *Aquilegia* for beauty and usefulness, and I often wonder why it is not much more

widely grown in gardens. For a number of years we have made a special endeavour to have this exquisite flower in good condition, selecting the finest forms only, and eliminating any that may appear poor in form or colour. This year they have made a wonderful show in the garden, besides affording large quantities of sprays for decoration.

They are much more effective in beds by themselves than when dotted about the mixed border, although if good clumps are planted they have a distinctly pleasing effect even there. I find, also, that the *Aquilegia* thrives remarkably well in partial shade, for the finest plants I have are growing in a bed on the north side of a wall. I expect on light soils this would be the best position in which to grow them.

Their culture is fairly simple, and is always best begun from seeds, as the plant, in its finer forms at all events, very much resents being divided or disturbed. I always sow the seeds early in spring in slight warmth, as I consider by so doing the plants are much stronger and bloom well the following year; whereas, if

sown outdoors in April they sometimes require an extra year before doing much good. On light soils I would, however, incline to sow early in July in the open, scattering the seeds very thinly and allowing the plants to remain in the seed-bed until the following spring, when they could be pricked off into nursery rows and finally planted where they were to bloom when strong enough.

Fairly rich, well-worked soil is a necessity if the best results are to be looked for, and in dry weather an occasional soaking of clear water is most beneficial to the young plants. When once well established, this watering is seldom necessary.

These high-class *Aquilegias* have one serious fault—they are comparatively short-lived. It is

safest, therefore, to raise a quantity each spring, so that a full stock of vigorous plants can be maintained at all times. When well cared for, the flowering season extends to several weeks, and no one could fail to admire a really fine strain.

Preston House Gardens, Linlithgow. C. BLAIR.

A BEAUTIFUL AND INTERESTING
PÆONY.

IN addition to being an exceedingly beautiful hardy flower, the Pæony illustrated herewith, and named *P. officinalis lobata*, is of considerable interest. It has been known in this country for nearly eighty years, possibly longer, because it was illustrated in Sweet's "British Flower Garden" as long ago as 1838. It has, undoubtedly, been in cultivation in this country since that time, yet it is seldom found in gardens, and even the collection at Kew does not at present contain a specimen. It was brought to my notice a few weeks ago by Mr. F. Gifford of Hornchurch, Essex, who sent an invitation to go and see a bed of well over a hundred plants that were carrying a total of something like 600 flowers. Although used to seeing beautiful flowers, I do not remember coming across anything more charming than this bed. The blooms are about three inches in diameter, and their colour may best be described as glowing orange scarlet or, in the deepest part, tomato red. In addition to this wonderful colour the flowers are exceedingly graceful, and their shape is well shown in the illustration. The foliage is finely lacinated, and the flower-stems attain a height of about eighteen inches.

F. W. H.

THE PLUME POPPIES.

IN the wild garden, open parts of the woodland, or even at the back of a large herbaceous border where plants of a bold and distinct growth are required, the Plume Poppies, *Bocconias*, should find a place. Two are eminently suited for such positions, these being known respectively as *B. Cordata* and *B. microcarpa*. Both are hardy herbaceous plants, and during the summer each attains a height of about nine feet, the large shoots having a very much branched habit. The flowers, though small, are produced in profusion during July and August, and form plume-like masses from which the plant derives its popular name. The two kinds do not differ very considerably, *B. microcarpa* being the best coloured of the two. These Plume Poppies will grow in almost any soil that has previously been well dug, though a rather clayey medium will give the best results. When planting in the herbaceous border, care must be taken not to place them near weaker-growing and choicer plants, as they are voracious feeders and take a vast amount of nourishment from the soil which their roots traverse. Propagation is easily effected by division of the roots in early spring, a season when they may be transplanted. A mass of these plants in the wild garden is very pleasing.

THE OAK TREES OF THE
WORLD.

AT page 289 of *THE GARDEN*, issue June 12, "Hurstcot" has some historical notes on the Oak, using the name in a generic sense, and he incidentally mentions that "notes regarding little-known specimens would be welcome." Almost exhaustive information on cultivated and wild specimens of Oaks of various kinds will be found in Elwes and Henry's "The Trees of Great Britain and Ireland" and in Bean's "Trees and Shrubs Hardy in the British Islands." These are rather expensive works, but they may be consulted either at Vincent Square (Royal Horticultural Society) or at Kew. I do not intend to supplement "Hurstcot's" notes on Oaks

Quercus, among them *Euphorbia*, with approximately 1,200 species; *Eugenia*, with 700 species; and *Ficus*, with 600 species. Each of these genera is represented both by shrubby and arboreal species, and *Euphorbia* by a large number of herbaceous and fleshy, Cactus-like species associated with a relatively small arboreal element.

Of the many branches of botany, the present (and past) distribution of plants over the surface of the globe is not the least interesting. Taking the trees of Great Britain—the Alder, Ash, Beech, Birch, Elm, Holly, Hornbeam, Lime, Maple, Oak, Pine, Poplar, Willow and Yew—each genus to which these trees belong presents peculiarities in distribution, as well as in number of species, not easily explained by the student of plant geography. Each of these elements of our woods and forests has its climatic limits, and each



PÆONIA OFFICINALIS LOBATA, A BEAUTIFUL BUT LITTLE KNOWN HARDY FLOWER.

growing in this country, but some particulars of the Oaks of the world may be of interest to readers who have not the advantages of access to comprehensive libraries.

One sentence in "Hurstcot's" communication calls for comment. He says: "There is no tree with the same number of species and varieties as the Oak." It is not quite clear what the author means, but it may be assumed that he intends to include all the known species of Oak—*Quercus*. Even in this extended sense the statement quoted is open to some modification. The genus *Quercus* comprises at least 300 species (leaving varieties out of the estimate) and probably as many as 350 species, large areas in China and Malaya still awaiting botanical exploration, and it is in these countries that Oaks find their densest concentration in the Old World. But with regard to mere numbers of species, several genera surpass

presents biological complexities constituting unsolved problems.

I will give in illustration of these facts and factors the broad outlines of the present distribution of the genus *Quercus*, which girdles the northern hemisphere and extends southward in America to the State of Colombia, but not reaching the Equator, and in the East to New Guinea. Oaks are numerous in species, and spread all over the temperate regions of North and Central America, in diminishing numbers, in the mountain southward. They are characteristic of the Atlantic forests, but relatively rare in the Pacific forests, where they yield to coniferæ, and the species are mostly different in the eastern and western regions. Something like fifty species, perhaps more, are restricted to Mexico and the other Central American Republics. Very few have a wide range. *Quercus virens* is exceptional in

this respect, ascending from the sea-coast in Cuba and the Gulf of Mexico to several thousand feet, and latitudinally from the South-Eastern States of North America to Cuba and Costa Rica. The British Oak, *Q. Robur*, in a broad sense, has a wide area, ranging from North Africa and Western Asia all across Europe almost to the Arctic Circle, and *Q. Ilex* extends from the Mediterranean region to China and Japan. There is a considerable aggregation of species in Western Asia, through the Himalayan mountains to China and Japan and southward, through Burma and Malaya eastward to New Guinea. The naturalists of the Challenger Expedition collected acorns in the Fly River Drift. No fewer than seventy species, on the authority of the late Sir Joseph Hooker, inhabit tropical districts.

No species is recorded from Africa south of the Atlas Mountains, and none from Australia. *Q. Guppyi* from the Solomon Islands, based on imperfect material, is a Laurel. An Oak, however, may almost invariably be recognised by its fruit or acorn, which varies in different species from a quarter of an inch to $2\frac{1}{2}$ inches in diameter, and presents a great variety of elegant shapes. As a contrast, I may add that the genus *Fagus* (Beech) numbers about a score of species, and belts the world in north temperate regions, reappearing in extra-tropical South America, New Zealand and Australia, with no congeners or close allies in the whole of the intervening country. Some botanists treat the Southern species as generically distinct, under the name of *Nothofagus*, but that does not alter the fact that the two groups of species are more closely allied to each other than to anything else.

W. BOTTING HEMSLEY.

DAFFODIL NOTES FROM NEW ZEALAND.

WITH us, at the time of writing, *i.e.*, May 17, Daffodils are beginning to push up their green noses, while their *avant-coureur*—the Paper-White—has been flowering in increasing numbers since the middle of last month. Other kinds of *Polyanthus* *Narcissi* will take up the running into July, when the first early yellow trumpets herald the advent of the *Narcissus* proper and the coming of spring.

The Rev. J. Jacob's notes on "Technical Terms in Describing Daffodils" in your issue of March 13, with Mr. Pearson's rejoinder in April 3 issue, are of general interest, and the subject is, I think, worthy of serious attention, and might profitably occupy some pages of the "Daffodil Year Book, 1915."

I take it Mr. Jacob's article is tentative, something in the way of a feeler to elicit opinions and suggestions from others; so I venture to make a contribution, trusting that, coming from the Antipodes, it will not be altogether too stale when it reaches you.

With Mr. Pearson, I am inclined to think that some of Mr. Jacob's terms and illustrations are capable of improvement, and with due deference I mention some instances. As grown out here, *Lucifer* is not regarded as a "hooded" flower. It is at times apt to be somewhat weak in perianth, and so to suffer in rough weather, but normally presents a fairly flat perianth. "Elliptical," as Mr. Pearson remarks, needs some thinking out; while "claw-shaped," frequently applied to a similar character in the petals of Cactus Dahlias, is easily understood. Similarly, the meaning of "rectangular" is not immediately apparent, referring also to the profile of the flower. The definitions given of "loose," "loosely built"

while "incurved," suggested by Mr. Pearson calls to mind the form of *Chrysanthemum* with which the term is identified. May I suggest "involute" (rolled inward from the edges) or "partly involute" as more descriptive of the type? Mr. Pearson does not like "flanged," nor do I; it always makes me think of a drain-pipe. Would not the expression "rolled" or "rolled back," used in some catalogues, suffice? Then, I think a word is wanted to express that kind of trumpet mouth variously called "gashed" (ugly word), "serrated," "lobed," &c.

Now, I expect Mr. Jacob will say I have done nothing but criticise without helping, which I admit. Still, I have further ventilated some of the wants or shortcomings of the Daffodil vocabulary, and Mr. Jacob and his *confrères* may be entrusted to supply or remedy them.

While talking of Daffodils, I should like to ask: How long does a seedling remain a seedling? In other words: How long is a seedling eligible for the seedling class; what is the difference between a "seedling" and a new variety; when does the former merge in the latter; and when do they become full-fledged and take their places as standard varieties? If I correctly interpret the Midland Daffodil Society's schedule, a seedling retains that character until it goes into commerce, when it becomes a new variety for four years, after which, if it survives, it is regarded as a standard variety, though still eligible for the Bourne and Walter Ware Challenge Cups. I should be glad to know if this is correct and generally recognised, and to have any other information on the subject that will serve for our benefit and guidance in compiling schedules out here.

A. E. GRINDROD.

Auckland, New Zealand.

CANTERBURY BELLS AND ALKANET.

A FEW days ago, when visiting a garden on the East Coast, I was greatly pleased with a magnificent grouping of the Dropmore Alkanet, *Anchusa italica* Dropmore variety. This was in a large mixed border, and in front pink Canterbury Bells were flowering profusely. The effect created by this combination of rich blue and pink was particularly good, and seeing that both plants are so easily raised and grown, I thought the idea might be worth passing on. Of course, it is now too late to sow seeds of either plant; but seedlings of the Canterbury Bell can be obtained from some nurserymen and florists, and these should be planted out 9 inches apart without delay. The plants can, of course, be lifted in October and transferred to the flower border. The *Anchusa*, I find, increases readily by division of the roots during the autumn, almost any little piece growing and making a good plant. These divided portions do not always flower the first year, but will certainly do so the second.

S. X.



ROSE COLCESTRIS, THE NEW PINK VARIETY AWARDED THE "CLAY" CUP AT HOLLAND HOUSE FOR THE MOST FRAGRANT NOVELTY. (See page 354.)

and "starry" do not seem to me sufficiently distinct, and I should regard Frank Miles as a starry flower rather than loosely built.

The use of the words "rough" and "smooth" to indicate either the set of the perianth segments or the texture of them seems rather vague, and calculated to leave one in doubt as to which was intended. "Reflexed" is defined as "when the perianth bends back towards the corona." Should not this read "away from the corona," or "towards the ovary"? I have always taken the word "twisted" to indicate the form of segment similar to a propeller blade, and it does not, I think, properly describe the Frank Miles type;

particularly good, and seeing that both plants are so easily raised and grown, I thought the idea might be worth passing on. Of course, it is now too late to sow seeds of either plant; but seedlings of the Canterbury Bell can be obtained from some nurserymen and florists, and these should be planted out 9 inches apart without delay. The plants can, of course, be lifted in October and transferred to the flower border. The *Anchusa*, I find, increases readily by division of the roots during the autumn, almost any little piece growing and making a good plant. These divided portions do not always flower the first year, but will certainly do so the second.

THE CULTIVATION OF STRAWBERRIES.

THE garden Strawberry of to-day is a giant compared with its early type, and as far as is known is the complex result of the intercrossing of several wild types known by the generic name *Fragaria*, founded upon the Latin word *Fragum*, applied by the Romans

direction. Mr. Knight only described eighteen out of 400 seedlings, and perhaps the single one out of all his productions which is still grown is Elton Pine. Mr. Michael Keens of Isleworth, Middlesex, also raised a number of seedlings early in the century. Keens' Seedling, raised in 1823, was one of his productions. From 1840 to 1860 Mr. Myatt of Deptford raised a number of seedlings, several of which have proved of sterling merit, one of them being the still famous British Queen, and justly so on account of its high flavour.

1868, the first being Traveller, followed, after an interval of some years, by King of the Earlies and Noble. The crossing of these two varieties gave him the celebrated Royal Sovereign Strawberry, which was sent out in 1893, since which period the firm of Laxton have been able to make considerable improvement. The Laxton, Bedford Champion, The Bedford, Laxton's Latest, Utility, also King George V., The Earl, Maincrop and The Queen are new varieties of 1912. Strawberries naturally vary in different soils



MIXED BORDERS, WITH BOLD GROUPINGS OF CANTERBURY BELLS AND ALKANET.

to the fruit of the Wood Strawberry, known to them only as a wild plant. We believe that the size has been chiefly derived from the Chilian Strawberry, being intercrossed with the Wood, the Alpine and the Scarlet Strawberry, but the evolution has been slow and without any records as to the origin of the earlier types. Definite attempts at intercrossing the species of *Fragaria* were no doubt rare, until Mr. T. A. Knight related the results of his numerous experiments in that

Mr. J. Barnes of Bicton raised Bicton Pine about 1845. Willmott of Isleworth and Trollop of Bath were also raisers about that period. Mr. Powell of the Royal Gardens, Frogmore, sent out several seedlings, of which Coxcombe was the best. Samuel Bradley, gardener at Elton Manor, near Nottingham, was the raiser of that fine market variety, Sir Joseph Paxton, in 1862, and also Dr. Hogg. The late Mr. T. Laxton commenced his experiments with Strawberries about the year

and localities, but there are some that appear to do well in almost any locality, notably Royal Sovereign, The Bedford, Bedford Champion, Sir Joseph Paxton, Givon's Late Prolific, Viscountess and Laxton's Latest. Strawberries are gross feeders, require generous treatment, and should be planted on land that has been well manured and deeply dug. Rooted runners should be planted during August time and made very firm, as loose planting is one of the chief causes

of failure. Strong-growing sorts should be given 2 feet 6 inches between the rows and 18 inches between the plants; dwarf growers, such as British Queen and Dr. Hogg, may be planted 2 feet by 18 inches. Pot plants are much to be preferred to open-ground plants, as, having been potted into good soil in 2½-inch pots from early runners, they are finer plants and can be lifted without disturbing the roots. They will bear a full crop the first season, and can safely be planted early, even in dry weather.

Fungoid diseases, such as mildew and shot-hole fungus, may be prevented and cured by spraying with liver of sulphur, an ounce to a gallon of water.

Selection of Varieties.—The best Strawberries for jam are Viscountess and Scarlet Queen; best early, Royal Sovereign; best forcing, Royal Sovereign; best second earlies, Laxton's Leader, Bedford Champion and Laxton's Reward; best main-crop Strawberries, The Bedford, Sir Joseph Paxton and Rival; best late Strawberries, Givon's Late Prolific, Laxton's Latest and Laxton's Utility; best flavoured Strawberries, British Queen, The Queen, Pineapple and Epicure.

NEW AND RARE PLANTS.

FIRST-CLASS CERTIFICATES.

Odontoglossum Georgius Rex.—Without a doubt the noblest *Odontoglossum* yet produced, the well-branched inflorescence carrying no fewer than twenty-eight magnificent flowers. The ground colour of the flower is white, yet almost obliterated by dark purple blotches. An unusually large white margined lip characterises the variety, which, with feathered golden crest, renders it very striking. In addition to the first-class certificate, the Lindley medal—a rare award—was granted to this unique novelty. Exhibited by J. Gurney Fowler, Esq., Brackenhurst, Pembury, Kent. (See illustration.)

Cattleya Warscewiczii Mrs. E. Ashworth.—An exquisitely chaste flower of delicate pink throughout; sepals long, narrow and pointed; petals broad and well proportioned. The large, handsome lip is touched with yellow in the throat. From Messrs. Charlesworth and Co., Hayward's Heath.

Lilium regale.—This noble Lily has already received an award of merit as *L. myriophyllum*, the older name, which therefore takes priority, being as above. It is a trumpet kind from China, with whitish, yellow-tubed flowers and golden anthers. The buds are coloured deep rose, and this colour is prominent on the exterior of the open flower. Miss Willmott, who exhibited several handsome vases of it, appears to possess a particularly good type of this handsome species, which, happily, also is one of the most tractable of the trumpet class. At Warley, where it is an unqualified success, it grows nearly seven feet high.

AWARDS OF MERIT.

Hemerocallis Golden Bell.—The rich yellow flowers of this fine Day Lily have somewhat of the form and proportions of *H. aurantiacus* major. It is a very handsome sort, 3 feet to 4 feet high, and very profuse flowering. From Messrs. R. W. Wallace and Co., Colchester. (See illustration, page 350.)

Sweet Pea Jean Ireland.—The flower is of deep cream, with an irregular suffusion of rose red colour at the tips. From Messrs. Dobbie and Co., Edinburgh.

Begonia Lord Methuen.—A double-flowered variety of very large size and brilliant scarlet colour.

Begonia Mrs. Cuthbertson.—A pink self of

is very slight, though the whorl-like leaf arrangement is identical with that kind. It is a very striking and beautiful novelty. From Mr. Amos Perry, Enfield, Middlesex.

Verbena chamædryoides.—An old species originally from Brazil, this during recent years has come into greater prominence by reason of its brilliant scarlet colour and a degree of hardiness not before suspected. In favoured districts it winters fairly well in the open. Shown by Mr. Reginald Prichard and other hardy plant specialists.

Erica cinerea atrorubens.—The name is descriptive of a deep, well-coloured form of this popular summer-flowering Heath. From Mr. G. Reuthe, Keston, Kent.

Rose Queen Alexandra.—A single pale lemon variety, with which colour is a suffusion of pink. It is a bush variety of the Perpetual-flowering class. Exhibited by the Rev. J. H. Pemberton, Havering-atte-Bower, Romford.

Rose Queen of Fragrance.—This is the remarkable pink-flowered variety which a year ago at Holland House Show was awarded the Clay Cup for fragrance. Possessing this latter in marked degree, the variety has the attributes of colour, freedom of flowering and constitution which a good garden Rose should possess. From Messrs. William Paul and Sons, Waltham Cross.

Lælio-Cattleya Fascinator-Mossiae var. Moonlight.—A medium-sized flower which from the front view is of the purest white throughout, save for a suspicion of green in the throat, which emphasises the white. Externally the sepals are marked by a faint pink line. It is an exquisitely chaste-looking variety.

Odontoglossum crispum virginianum var. Madonna.—A handsome white variety of great purity and beauty. The golden crest on the lip adds to its charm. The plant bore a large raceme of flowers. These two were sent by Messrs. Charlesworth and Co., Hayward's Heath.

Cattleya Paula (*C. Clarkæ* × *C. dowiana aurea*).—A most distinct hybrid. Sepals and petals rosy red, the lip of intense maroon with purple suffusion, being succeeded by a golden-coloured throat lined with crimson. From Messrs. J. and A. McBean, Cooksbridge.

Cattleya Mendelii Mrs. Smee.—Sepals and petals of the most delicate pink, lip heavily fringed, throat golden with crimson markings. A very handsome variety. Shown by Sir Jeremiah Colman, Bart., Gatton Park, Reigate (gardener, Mr. Collier).

Rose Colcestris.—This was awarded the Clay Cup, offered for any new Rose possessing the true old Rose scent. It is a pink-flowered variety of considerable merit. Raised and exhibited by Messrs. B. R. Cant and Sons, Colchester. (See illustration, page 352.)

The whole of the foregoing were exhibited before the Royal Horticultural Society at Holland House Show on July 6, 7 and 8, when the awards were made.



THE WONDERFUL ORCHID, ODONTOGLOSSUM GEORGIUS REX, SHOWN BY MR. GURNEY FOWLER AT HOLLAND HOUSE.

the fringed class and of giant size. These were exhibited by Messrs. Blackmore and Langdon, Bath.

Lilium Amos Perry.—This is perhaps the most remarkable hybrid Lily seen for many years. Raised from crossing the rich yellow *L. Parryii* and *L. Humboldtii* magnifica, the greater leaning of the flower, both in colour and form, is towards *L. Parryii*, though it is much less drooping than in that well-marked kind. Rich golden, mingling with refined orange in colour, the petals are long, tapering to an acute point. Internally the flowers are copiously spotted crimson. In the specimens shown, the tendency to reflex in the perianth segments—a marked characteristic of *Humboldtii*—

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Orchard-House.—The final thinning of the fruits on the late trees must not be longer delayed. Keep the centres of the trees clear of superfluous growths, thus letting in all the light possible to the fruits. Trees on which the fruits are finally swelling must be well supplied with stimulants. A surface-dressing of well-decomposed horse-manure will also be beneficial. Drench the foliage twice daily with rain-water.

Late Grapes.—Examine carefully the bunches and remove the surplus berries where they are considered to be too thick. See that there is no crowding of the berries in the centre of the bunches. The variety Lady Downe is very subject to scalding just before the berries commence to colour; but this can be avoided to a great extent by reducing the amount of moisture in the house and admitting plenty of air both top and bottom. The hot-water pipes should also be kept slightly warm.

Outside Fruit Borders.—Where the roots of Vines, Peaches and other fruits are outdoors, it will have been a difficult matter this season to have kept them well supplied with water, unless they were mulched with manure early in the season. It is not too late now to mulch borders, especially those of late Vines and Peaches.

Plants Under Glass.

Chrysanthemums.—Staking and tying will require much attention from now onward. The staking of decorative plants is often overdone, far too many stakes being used. Many of the plants need no more than one good stake to support them, so long as the tying is done carefully. Many of the large-flowered kinds may be showing their flower-buds; but these must be rubbed out, as it is too early yet to retain the buds. Syringe the whole of the plants regularly with an insecticide to keep them free from aphids.

Freelias.—The old bulbs which were placed in frames to ripen can now be shaken out of the soil. Select the most promising bulbs, and place them in a cool room till they are required for potting. New bulbs should be ordered at once if required.

Begonia Gloire de Lorraine.—The earliest plants will now require attention to staking and tying. Only in the case of very large specimens is it necessary to use more than one stake. Green Bamboo tips make the neatest supports, and if green raffia tape is used for tying, there will be nothing to mar the beauty of the plant. Little fire-heat is necessary to grow Begonias at this time of the year, so long as the best use is made of sun-heat.

The Flower Garden.

Antirrhinums.—If the plants are required to flower in May or June, seeds must be sown at the end of the present month or early in August. The seeds may be sown in boxes and placed in a cold frame, where they can be shaded from bright sun till they have germinated.

Violas.—These must be frequently watered, or they will quickly pass out of flower. A little soot or artificial manure, if sprinkled about the roots just before watering, will help to stimulate the plants. Keep the old flowers regularly removed.

Roses.—Keep the dead flowers removed every few days. If the petals are required for pot-pourri, they should be placed on a clean base in a dry shed. They must be turned every day till they are quite dry. If mulching was not done in the spring, it may be done now, as it will be of immense value to the autumn flowers.

Violets.—Occasional light dustings with well-seasoned soot is an excellent preventive of red spider, as well as a stimulant to the plants. Should this pest attack the leaves, syringe them with an insecticide late in the evening. To keep the plants in healthy growth, they should be sprayed with the hose-pipe every evening.

The Hardy Fruit Garden.

Pears.—There seems an excellent prospect of a good crop of Pears. It will be safe now to thin the fruits where they are too thick. Plenty of

water must be given to trees on walls, and where liquid manure is available, an effort should be made to convey this to the roots.

Newly Planted Trees.—It has been a very trying season for trees that were planted during the last planting season. Those well mulched will have passed through the ordeal safely. The roots must be regularly watered during dry periods, and where practicable the foliage should be sprayed late in the evening with the garden hose.

The Kitchen Garden.

Cauliflowers.—The latest planting of Cauliflowers may be made now. The ground should be well prepared by deep cultivation, and the plants must be given every encouragement to grow freely. Give plenty of water to earlier plants, and if liquid manure can be procured, a little should be given to each. Examine frequently the plants which are turning in. If a cool shed or cellar is available, the heads should be lifted when ready and placed therein, where they will keep fresh for several days.

Early Potatoes.—Where the ground is required for other crops, the tubers may be lifted and stored in a cool shed. The seed-tubers must be left on the ground for a day or two to harden. They may then be placed on shelves in an airy shed.

Spinach.—The ground should be prepared for the planting of winter Spinach, which may be made towards the end of the month. The seed can be sown in drills about fifteen inches apart.

French Beans.—Frames which have been used for growing early Potatoes may be planted with Dwarf Beans. Sowings can be made at intervals of a week or ten days till the end of August.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Spring Cabbage.—This crop is best sown in two batches, as its growth very much depends upon the weather during August. The chief and first sowing should be made about July 23, and followed up with another sowing ten days or a fortnight later. If the ground where the seed is to be sown is very dry, a watering must be given some time previous to sowing. Flower of Spring and Harbinger are both reliable varieties for sowing at this season.

Savoy.—A large planting should be made of these reliable and hardy vegetables. The small varieties turn in quicker, and must be planted closer together than the large sorts. The large ones are invaluable during January and February.

Broccoli.—When planting these a fair amount of ground should be devoted to the Purple Sprouting Broccoli, which is very hardy and not particular as to soil.

Potatoes.—Any early crops which have completed their growth and not been used up to date will be better if lifted and stored to make more room for successional crops of other vegetables.

Cucumbers in bearing should be given occasional top-dressings and have the number of fruits and growths regulated with the object of lengthening the supply from the existing plants. Red spider must be kept in check by frequent syringing, also by keeping the atmosphere as humid as possible by damping down the floors and borders of the pit.

Late Peas ought to have stakes placed to them before they are too far advanced. Water should be given if it is required, and keep the hoe well plied whether necessary for keeping down weeds or not.

The Hardy Fruit Garden.

Apples.—The summer pruning ought now to be proceeded with, partially shortening all growths except the leaders, which should remain and be allowed to grow unchecked. This pruning not only admits more light to help the development of the present crop but, further, has the

tendency to create more fruit-buds for the succeeding year. Water should be given to trees requiring it; especially is this necessary in sandy soils. When manure can be afforded, now, while the fruit is swelling, is a good time to apply it, as the quality and weight of the crop can be improved considerably by its use.

Budding.—Such trees as Apples, Pears and Plums can now be budded where this is necessary. If the weather is bright and dry, the operation should be carried out promptly, for if the buds are allowed to dry in the process, failure is inevitable.

Fruit Under Glass.

Grape Muscat of Alexandria.—To get this Grape to finish with fine colour and flavour, suitable conditions are necessary. Air must be admitted freely in bright, fine weather, and a slightly drier atmosphere maintained; this latter detail, however, should not be overdone. Although harm would come from overwatering the borders at this stage, the soil must never be allowed to get so dry as to endanger the loss of any roots near the surface through lack of water. A minimum temperature of 70° to 75° at night should prevail.

Fruit-Houses.—Trees of which the crops have been gathered should receive every attention as regards watering and feeding, also in keeping the foliage syringed to ward off attacks from insect pests. Mealy bug must be dealt with, methylated spirit being applied with a small brush wherever it is found.

The Flower Garden.

Rhododendrons and Azaleas.—All the seed capsules found on these shrubs should be picked off to concentrate the energy of the plants in the formation of young growths and flower-buds for the following season. Although these plants resent a wet, undrained soil, they quickly suffer from drought, especially bushes that may have been transplanted. Any specimens requiring water should be attended to promptly.

Herbaceous Border.—If drought continues, watering will have to be resorted to. Even where hoeing has been constant, the vigorous growth of some subjects has absorbed all the remaining moisture. Plants which flower during the autumn can be assisted to make better growth by the help of manure given in liquid form.

Plants Under Glass.

Schizanthus.—A sowing might be made by those who desire this annual to flower during the autumn. At this season it quickly commences to flower, and is therefore much dwarfer than the autumn-sown batch which flowers during the spring. The wisetonensis hybrids are mostly favoured, but there are splendid strains of all the sections to be had. When large enough, three or four of the seedlings should be pricked off in a pot, and be grown as cool as possible with a moderate amount of shade.

Malmaison Carnations.—Plants that were potted into 8-inch and 9-inch pots during the spring should now have each growth staked separately. Thin canes or Bamboo tips are very suitable. When inserting the stakes, it should be seen to that they are pushed right down to keep them rigid when supporting the growths as they become larger. The layering of the main batch ought soon to be completed, to get well-rooted plants before the autumn is far advanced.

Cyclamen.—The plants that were dried off after flowering in the spring are now commencing to make new growth, and must be partly shaken out of their present pots and potted into slightly larger ones. Frames which can be shaded will suit them well. Careful watering and an occasional fumigation to keep thrip in check will be all their further needs.

Chrysanthemums.—A start can now be made by giving top-dressings of fine soil to which has been added a fair proportion of Chrysanthemum manure. They should be made firm without injuring any of the lower leaves, and, when applying water afterwards, a rose should be used until the soil becomes settled and firm.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

Malmaisons in variety were shown by Mr. Charles Turner, Slough, three prominent varieties being The Colonel, Princess of Wales and President Viger. The plants were very well grown.

Mr. A. F. Dutton, Iver, made a magnificent display with about fifty varieties, staged in vases. Quality was the keynote of this exhibit, and several very striking varieties were to be noted. Chelsea easily stood out as the best flaked Perpetual-flowering variety; while Mrs. A. F. Dutton, Carola, Louvain (a new rosy salmon), Snowstorm (very fine), Lady Meyer, Queen Alexandra, Champion and Scarlet Glow were also shown in splendid form. The new Perpetual-flowering border variety Iver Yellow was also well to the fore.

No one can match Mr. James Douglas of Great Bookham as a grower of border Carnations, and on this occasion he made a most imposing display. Several new seedlings were shown, including Miss Rosa Joseph (a deep rose terra-cotta), Henry Brett (crimson), and Terra-cotta (orange red). Skirmisher, The Linkman and many others were shown in superb condition.

Messrs. Laxton Brothers, Bedford, confined themselves wholly to their new Bedford Belle, a very fine salmon pink Perpetual-flowering variety. A charmingly arranged basket and a large number of vases of this variety were shown.

Mr. H. Lakeman, Thornton Heath, made a capital display with a combination of border and Perpetual-flowering varieties. The former were extremely good, a few of the most notable being Lieutenant Shackleton, Lady Hermione, The Linkman, Daffodil, Forrester and Mrs. E. M. Smith (a very fine white).

Messrs. Young and Co., Cheltenham, were accidentally allotted more space than they required; but they, nevertheless, made a very good display with tall stands and vases of Hon. Lady A. Neeld, Mikado, May Day, Empire Day, Duchess of Devonshire (a very good crimson), White Enchantress and others.

One usually expects a good display from Mr. H. Burnett, Guernsey, and on this occasion he made an excellent show. Without any fancy staging, a large number of well-grown flowers were shown to advantage. Notable varieties were Carola, R. F. Felton, Mandarin, Mrs. C. W. Ward, Marmion, White Enchantress, Mikado and Mrs. C. F. Raphael.

ALPINE PLANTS.

These were not numerous, and we imagine we have seen them much finer generally.

Mary Countess of Chester, Holland House (gardener, Mr. C. Dixon), had a highly interesting lot of alpinists, chiefly *Sempervivums* and *Saxifrages*. The Cobweb Houseleeks were very beautiful, such as *arachnoideum rubra*, Dr. Hooker, Lageri Houseleek, *cenophyllum*, *gnaphaloides* and *murale*. The *Saxifrages*, too, were in interesting variety and beauty.

The Misses Hopkins, Shepperton-on-Thames, showed alpinists in boxes, *Genista humifusa*, *Campanula garganica* in variety, many *Saxifrages*, *Oenothera speciosa rosea* and others being noted.

Mr. Reginald Prichard, Christchurch, had many interesting and choice plants, the chief of which were *Acantholimon venustum*, *Wahlenbergia vincaeflora*, *Primula suffrutescens*, *Hypericum cuneatum* (golden flowers and reddish buds), *Campanula westmooriensis* (a hybrid from Hooker and Elizabethæ), *C. acutangulare* (a very dwarf, dark blue, dainty flowered kind) and *C. Bowles Hybrid* (a dark-flowered sort).

Mr. G. Reuthe, Keston, Kent, had a fine show of *Orchis foliosa*, *Primula litoniana*, *Acantholimon venustum*, *Polygonum sphaerostachyum*, *Hypericum empetrifolium*, *Campanula punctata*, *C. Raineri*, *C. cespitosa pubescens* (a very dainty pusilla-like form), *C. pulla* and *Hypericum cuneatum*, *Spigella marilandica*, *Edelweiss*, a choice lot of *Saxifrages*, with *Ericas cinerea*, *atrorubens*, *carnea*, *atropurpurea*, *coccinea pygmaea* and others were also noted.

Mr. Clarence Elliott, Stevenage, showed alpinists on rockwork, the Mountain and other Thymes affording pretty sheets of colour. *Geranium argenteum*, *Campanula pulloides* (very fine), *C. carnica*, *Nierembergia rivularis* and *Potentilla Miss Willmott* were among the more showy and distinct. *Campanula linifolia pallida* was very beautiful, and the great mauve bells of *Ostrowskia magnifica* very effective.

Messrs. Piper, Barnes and Bayswater, arranged a prettily conceived alpine and rock garden, using the weathered York limestone to advantage. *Campanulas* of the pusilla class, *C. garganica* in variety, *Hypericum empetrifolium*, *Dianthus deltoides* in variety, *Origanum dictamnus*, *O. hybridum* and others were freely employed. The group was supplemented by *Astilbes*, *Iris Kämpferi*, *Water Lilies* and water-side plants, and constituted a very beautiful whole.

Mr. Herbert Jones, Bath, arranged a formal garden, in which were seen a great variety of garden ornaments, stone seats, vases, sundials and the like. Some of the larger vases were occupied by plants—*Lavender*, *Hydrangea* and others. A paved walk with stone columns for the pergola also formed part of the arrangement, and, planted with climbers, was very suggestive of its use in the garden.

Mr. Ernest Dixon, Putney and Wimbledon, arranged a terrace and wall garden, with lawn for tennis or the like. The wall and terrace borders were well occupied by plant life.

STOVE AND GREENHOUSE PLANTS.

Messrs. R. and G. Cuthbert, Southgate, N., set up a group of a miscellaneous kind, representing a large and varied array of interesting subjects. Very pretty were *Viscaria oculata caerulea*, *V. Brilliant*, *Lilium longifolium giganteum*, *Streptosolen Jamesonii*, *Hydrangeas*, *Spiraeas*, *Ferns*, foliage plants, and a number of

Ivy-leaved *Pelargoniums*, notable examples being *Mme. Crousse*, *Simmons' Scarlet*, *Sabina*, *Resplendent*, *Mrs. W. H. Martin* and *Mrs. Hawley*.

Miscellaneous stove and greenhouse plants were shown in most attractive form and in excellent condition by Mr. L. R. Russell, Richmond, Surrey. Diversity of species, forms and varieties were most noteworthy, and we are unable to do ample justice to the merit of the display. *Nepenthes* Sir W. Thistleton-Dyer, *N. amesiana*, *Anthurium Veitchii*, *Dracena sanderiana*, *D. Victoria*, *Croton Conte*, *C. Juliette Russell*, *C. russelliana*, *Caladium Mrs. L. R. Russell*, *C. Pantia Ralli*, *C. William Rappart*, *C. Thomas Tomlinson*, *Phyllotanium Lindenii*, *Alpinia sanderiana*, a nice batch of *Solanum Wendlandii*, and other plants, such as *Allocaasias*, *Phyllanthus*, *Marantas* and *Pandanus*, all contributed to make a most interesting group.

Colonel the Right Hon. Mark Lockwood, C.V.O., M.P., Bishop's Hall, Romford, Essex, had a very large and comprehensive table group of *Fuchsias* in great variety. The plants, which were mostly in 5-inch and 6-inch pots, were well grown and flowering profusely. Included in the collection were several very beautiful and novel colours and forms. Had the back rows been more elevated, the effect would have been enhanced.

Zonal *Pelargoniums* were shown in large and attractive bunches by Messrs. H. Cannell and Sons, Eynsford, Kent. The flowers had suffered in some measure from the heat experienced of late, but were pleasing, nevertheless. A few good sorts were *Louis Chauvin* (salmon), *Golden Lion* (orange), *Helen Countess of Radnor* (cerise), *Lady Roscoe* (soft pink) and *The Sirdar* (scarlet).

A very bright collection of Zonal *Pelargoniums* in large bunches was shown by Mr. Vincent Slade, Taunton. Good singles were *Golden Lion* (orange), *Lady Warwick* (margined), *Princess D. Singh* (salmon), *Lady Curzon* (soft pink), *A. J. Macself* (rosy red), *Mrs. Stidolph* (soft salmon), *Scarlet King* (rich scarlet) and *Lieutenant-Colonel Lambton* (Jeanne d'Arc type). Doubles and semi-doubles were *Lane* (orange), *Golden Glory* (vermillion), *Chavarri Hermanos* (scarlet), *Fascinator* (salmon) and *Dagata* (rose pink).

Fancy and Regal *Pelargoniums* made a beautiful table group as displayed by Messrs. Godfrey and Son, Exmouth, Devon. The colours were bright and pleasingly varied, and, set up with *Ferns* interspersed, the effect was quite good. Varieties worthy of special note were the following: *Beauty of Exmouth*, *Mrs. F. C. Hunter*, *Glory of Devon*, *Princess Mary*, *Topsy* (very dark), *Hettie*, *Captivation*, and *Bystock Charming*. A few very interesting seedling Cape or sweet-scented *Pelargoniums*, among which were *Godfrey's Pet*, *Mrs. Galsworthy* and *Jonathan Smith*, were also included.

Messrs. Jarman and Co., Chard, staged thirty-three bunches of Zonal *Pelargoniums* in fresh, clean condition. Doubles and semi-doubles were very conspicuous. The better kinds were *F. Poitevine*, *Genitriif Lane*, *Joyful*, *M. A. Roseleur*, *Mme. A. Mahieu*, *Paul Reboux*, *Mme. Dux* and *Le Luton*. A charming thing in this group was the semi-trailing variegated miniature hybrid *Mrs. Newton*, beautiful for decoration, and it has long, wiry stems.

Messrs. John Peed and Son, West Norwood, S.E., had a very large and comprehensive group of *Caladiums*, *Gloxinias* and *Streptocarpi*, the first mentioned being represented by large, well-grown plants of remarkable colour, better than this firm have shown for years. Some very handsome specimens of the *Caladiums* were noticeable, viz., *Lady Stafford Northcote*, *May Archer*, *Silver Queen*, *Rufus*, *John Peed*, *Sir Henry Irving*, *King George V.*, *Sir Julian Goldsmid*, *Argentine*, *Mrs. W. E. Gladstone*, *La Lorraine*, *Marquis Camden* and many dainty miniature forms, including *H. J. Chapman*. The *Gloxinias* and the *Streptocarpi* were very handsome and well grown, and showed remarkable improvement and good culture.

Two groups of *Spiraeas* from Messrs. Walshaw and Son, Scarborough, were a welcome feature in one of the tents. A very charming display they made, and the varieties represented were *Queen Alexandra*, *Superba*, *Ceres*, *Salmon Queen*, *Philadelphia*, *Juno*, *America* and *Queen Alexandra Improved*.

The Yokohama Nursery Company, Limited, Craven House, Kingsway, W.C., made a very interesting exhibit of dwarf trees. This display was set up in much more attractive style than usual with exhibits of this kind, and the specimens were in wonderfully good health and condition.

Messrs. W. Cutbush and Son, Highgate, N., and Barnet, Herts, showed a group of their new Ivy-leaved *Pelargonium* *Radiance*. This is a bright scarlet flower of great promise, and is a welcome addition to the list of these plants.

A table group of miscellaneous plants from Messrs. Stuart Low and Co., Enfield, made an attractive exhibit. The plants included specimens of *Statice imbricata*, *S. profusa imbricata*, hybrid *Streptocarpi* in variety, *Begonia Lucerna*, *Oleander splendens*, *Lotus peltorychnus* and *Solanum Wendlandii*. *Begonia Rex* (in front) and *Adiantum cuneatum* were used as an edging, and *Palms* as a background.

Pigmy Japanese trees in a great diversity of receptacles were shown outside the large tent by Messrs. Liberty and Co., Limited, London and Paris. This was a large collection, and well maintained the reputation of this firm.

ORCHIDS.

A dozen groups of Orchids occupied the central staging of Tent No. 2 this year. Perhaps one never expects at Holland House a repetition of the brilliant groups at Chelsea, which are shown when the Orchid season is at its height, but in quality the plants shown here worthily challenged comparison. Fresh genera had added their

flowers to those of six weeks ago, and such plants as the summer-flowering *Cypripediums* received prominent mention which was not shown then. There were not a large number of novelties entered for certificate, but of the five special mention should be made of Mr. Gurney Fowler's *Odontoglossum Georgius Rex*, which is undoubtedly one of the finest seedling *Odontoglossums* ever raised. The staging of Messrs. Charlesworth's group deserves special attention. After gazing at the roof of the tent, to which exhibitors will climb to get a little of everything in, it was a relief to see every plant placed on the eye-line, and every plant staged a specimen set off by a groundwork of *Maidenhair Fern* or other greenery. It need hardly be admitted that such an arrangement was simpler for the exhibitor, so far as putting the plants up was concerned, but it represented the specimen cultivation which we should like to see more generally imitated, and a wise restraint in the use of only the very best plants in a collection.

Messrs. Sander and Sons, St. Albans, occupied an important position at the entrance to the tent. The central bank of *Cattleya gigas sanderiana*, with its pinky sepals and rich crimson purple lip, dominated and gave character to the group. The summer-flowering *Cypripediums*, which are often so much more beautiful on account of their mottled foliage, were notably represented. *Upton* the very seldom seen hybrid between the *Cypripedium* and *Selenipedium* groups, was flowered well. *C. philippinense* was another good plant well flowered; these attracted by their quaintness. Vivid colouring was given by the brilliant *Odontiodas*, especially *Charlesworthii* and *Bradshawia luminosa*; and among the newer plants *Miltonia Sanderia vivicans* (neat, smallish flowers, finely blotched), *Odontoglossum wylamense* (a lovely piece of colour), *Cattleya R. Prowe* (a fine white), *Laelio-Cattleya Leda* (which is so beautiful for the self-colouring of its unblotched deep crimson lip) and *Stanhopsea tigrinum* were shown well. The *Dove Orchid* (*Peristeria*), *Laelio-Cattleya Endymion lutea* and the *Cordean* variety of *Cypripedium gigas* were other outstanding plants.

Messrs. Stuart Low and Co., Bush Hill Park, always infuse a distinctive charm into their exhibits by something graceful and charming in their scheme of arrangement. There were plenty of specimen plants, *Cattleya gigas* *Majestic*, four beautiful forms of *Laelio-Cattleya Aphrodite*, and a very lovely set of white *Cattleya Mossiae* varieties, to which prominence was given; but the group owed much of its lightness to the feather pieces of *Oncidium pulvinatum* and *O. macranthum*. One never tires, too, of such a combination of red and white as was repeated here, *Renanthera imschootiana* and *Phalenopsis rimestadiana*, although both are such well-known plants and so frequently find place together. Messrs. Low's group was worth studying for its small Orchids, so frequently misnamed botanical Orchids, as if their charm needed a botanist's eye to be appreciated and as if the only appeal to the florist's eye was size. *Brassavola tuberculata*, *Bulbophyllum barbigerrum*, *B. Lobbii Colossus* and *Promeneia citrina* were a few of those which repaid attention.

In the exhibit of Messrs. Armstrong and Brown, Tunbridge Wells, the pleasing use at the back of hybrid *Odontoglossums*, and, perhaps, too, the rich proportion of whites, gave a touch of individuality to a very nice arrangement of good plants. We cannot note down half the good plants of which we made jottings. *Cypripedium Daisy Barclay*, a variety unique in its rich spotting, must suggest a collection of good *Cypripediums*. *Odontoglossum Chanticleer* (a self-coloured chocolate except for its white edge) and *Miltonia lambeauiana* (white, with lemon centre) must stand as representatives for others not less fine. *Odontoglossum luteo-purpureum*, *Oncidium phymatocilium* and some fine plants of *Cattleya gigas* were other deserving of mention in the briefest list.

Mr. Harry Dixon, Spencer Park Nurseries, Wandsworth Common, staged a pleasing little group of good decorative plants; but why cannot the average visitor receive the help of a name card to the individual plants? There were a number of choice *Odontoglossum* hybrids. A plant of *Brasso-Cattleya Marion* carried seven flowers. *Laelio-Cattleya Cowanii* (apricot sepals and crimson lip), *L.-C. blancheyensis* (very lovely deep crimson lip), *Odontoglossum armainvillieriensis xanthotes* and *Cattleya Mossiae Wagneri* (two beautiful whites) were worth places (and labels) in any collection.

Mr. C. F. Waters, Deanland Nurseries, Balcombe, Sussex, also showed a small collection. *Vanda teres*, *Cattleya citrina*, *Renanthera imschootiana* and other good plants found place here alongside a number of newer *Odontoglossum* and *Miltonia* seedlings.

Messrs. Charlesworth, Hayward's Heath, had a quiet group, a pre-eminent group, every plant a specimen and every plant with room enough to be seen as a specimen. This exhibit at once appealed in its simplicity and richness. There was a central plant of the quaint *Epidendrum prismatocarpum*, with eight spikes, each over two feet high. *Odontioda keighleyensis* carried a much-branched spike 4 feet high. *Miltonia Charlesworthii* carried seven of its fine spikes so magnificently butterfly-blotted in deep crimson. *Odontioda Chanticleer*, with smallish orange scarlet flowers in close spikes; *Angraecum cichlerianum*, with its strange-looking white and green flowers jutting from successive leaf-axils; *Cattleya Warszewiczii* Mrs. E. Ashworth, with sepals of the tenderest lilac pink; *Dendrobium infundibulum*, pure white; *Odontoglossum crispum aurantiacum*—but we should have had to make a full catalogue of the group if we wished to mention all the best plants in it. We must not omit, however, the lovely white *Cattleya Mendelii* The Queen and the fine plants of *Epidendrum vitellinum majus*, fifteen spikes in a pan, of which the intense orange colouring lit up the whole exhibit.

THE GARDEN.

No. 2279.—VOL. LXXIX.

JULY 24, 1915.

NOTES OF THE WEEK.

Record Price for Roses.—At the Saltaire Rose Show, an abridged report of which appears on another page, the whole of the proceeds were devoted to the War Fund. A collection of sixty Rose blooms exhibited by Messrs. Frank Cant and Co. realised £25, and a smaller collection was sold for £5.

Trials of Spring Cabbages and Perennial Poppies at Wisley.—A trial of Spring Cabbages will take place at the Royal Horticultural Society's Garden, Wisley, during the coming season. Seeds of all varieties which it is desired should be tried should be sent *immediately* to the Director, Royal Horticultural Society's Gardens, Wisley, Ripley, Surrey, from whom forms of entry may be obtained. A trial of Perennial Poppies will also take place at the Royal Horticultural Society's Garden, Wisley, during 1917. Plants of all varieties which it is desired should be tried should be sent *immediately* to the Director.

Rose Climbing White Pet in a Cottage Garden.—The accompanying illustration, from a photograph taken in the picturesque village of Letcombe, Berkshire, depicts this well-known climbing Rose clothing an archway with its large clusters of double white flowers. The variety appears to be quite a favourite among cottagers, since it is often seen in country districts. One reason for its popularity is owing to the fact that it continues to flower over quite a long season, and this cannot be said of many climbing Roses. Moreover, it is a very strong grower, being quite able to hold its own even in a neglected garden.

A Beautiful Chinese Rose.—*Rosa soulieana* is a vigorous-growing species from Western China, beautiful and distinct in character throughout the year. Growing 8 feet to 10 feet or more in height, it is a delightful wild Rose for the less formal parts of the pleasure grounds, the shrubbery border and the boundary of the woodland. Freely armed with spines, *R. soulieana* could be most effectively planted as an impenetrable hedge of informal outline. Its interest and beauty may be described as four-fold—the winter character, with dense growths and branches copiously armed with grey-green spines; the light grey-green or

silvery green foliage; the creamy white flowers, more than an inch across, abundantly borne in large, branching corymbs; followed by orange red fruits in the autumn.

National Sweet Pea Society's Outing.—Following the splendid exhibition of Sweet Peas held in London on Tuesday of last week, about eighty members of the society visited the official trials at Boyton Hall, Roxwell, Essex, on Wednes-

Peas and other flowers greatly admired. Tea, at which the president, Miss Philbrick, very ably presided, was provided by the two firms named. Returning to London in the evening, the members generally were of the opinion that the outing was one of the most pleasing of the many that have been arranged by the committee. It is good to know that the society, notwithstanding the war, is making good progress.

The Orphans of Gardeners.—In past years the Royal Gardeners' Orphan Fund has relied for its income on the annual festival dinner, held in May. This year the committee felt compelled to abandon this, and a special appeal is now being made to those interested in horticulture. This appeal we endorse with every confidence, knowing as we do the admirable work that the Fund has done and is still doing. Started in 1887, it has for its object the maintaining and starting in life of the orphans of gardeners, an annual income of nearly two thousand pounds being required for this admirable purpose. We appeal to those of our readers who are now enjoying their gardens, and especially those who have children of their own, to send a donation to the hon. treasurer, Mr. Edward Sherwood, and so help to brighten the lives of those whose fathers, in their lifetime, played their part in the great world of horticulture. The address to which to send money is 19, Bedford Chambers, Covent Garden, London.

The Mount Etna Broom.—Among the comparatively few hardy shrubs which flower during July and early August, the Mount Etna Broom, *Genista ætnensis*, is one of the most valuable. Growing to a height of 12 feet to 18 feet or even more, it is a useful subject for the back of a shrubbery border, large beds in the pleasure grounds, and groups in the open woodland and park. In time, should the position in which the plants are



A ROADSIDE SCENE IN A BERKSHIRE VILLAGE. THE ROSE IS CLIMBING WHITE PET.

day. In spite of the dry weather, the trials were in excellent condition, thanks to the untiring efforts of the trials superintendent, Mr. Reginald Christy, and his enthusiastic daughter. After lunch the members proceeded by motor to Mark's Tey, near Colchester, where the seed grounds of Messrs. Alex. Dickson and Sons and Messrs. Dobbie and Co. were inspected, and the magnificent Sweet

growing permit, they assume the habit of small, elegant trees the young, twiggy branches being pendulous. This Broom is sparsely furnished with leaves, but with the rich green of the branchlets this is not very noticeable. The small, Pea-like flowers are rich golden yellow. Young plants can be readily raised from seeds, which mature freely on the plants.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Deferred Query on Goldfish.—Can any reader tell me how long it is before little goldfish get their colour? I have sixteen gold and silver fish in a good-sized pond, and there are several small brown fish which we hope are goldfish. They are about a year old. I shall be so much obliged for any information about goldfish being hardy in this country.—G. M.

Flower Borders at a Cripples' Home.—The accompanying illustration is of particular interest, inasmuch as it represents flower borders, with orchard in the background, at St. Vincent's Cripples' Home, Eastcote, Middlesex. We understand that most, if not all, of the gardening is done by cripple boys, and the effect seen in the illustration does them credit.



FLOWER BORDERS AT ST. VINCENT'S CRIPPLES' HOME, EASTCOTE, MIDDLESEX.
THE GARDENING IS DONE BY CRIPPLE BOYS.

On Drying Herbs.—Take care they are gathered on a dry day, by which means they will have a better colour when dried. Cleanse your herbs well from dirt and dust, cut off the roots, separate the bunches into smaller ones, and dry them by the heat of the stove, or in a Dutch oven, in such quantities at a time that the process may be speedily finished, *i.e.*, "Kill 'em quick," as a great botanist says. By this means their flavour will be preserved. There can be no doubt of the propriety of drying herbs, hastily by the aid of artificial heat rather than by the heat of the sun. When dry remove the leaves, rub through a sieve and bottle at once.—K. T.

How to Make Perfumes.—To anyone inclined for experiment in the direction indicated by Mr. E. T. Ellis in your issue of July 10, page 337, may I give Punch's advice, "Don't." The only possible result will be failure and waste of money and material. Will Mr. Ellis try some small experiments and report? I should much like to witness the operations, having read the communication with great amusement. As an

enthusiastic gardener and an old pharmacist, may I assure "M. H." that she will get no satisfaction whatever by dabbling in laboratory work; the only result will be mess. She certainly cannot produce liquid perfumes from the products of an English garden, and no ointments are now made from "herbs." The last survivor made with Elderflowers is no longer used. The only product of my own garden handed over to the pharmacy is a little Garlic, and this is by no means a favourite perfume.—JOHN WHITFIELD, F.C.S.

The Cutting of Flowers.—Mr. E. T. Ellis, in writing on this subject, page 301, issue June 19, would have done well if he had referred to the varieties and kinds of flowers that will stand the "cut-and-come-again" practice. Inexperienced amateur cultivators may do plants harm, structurally, beyond the mere loss of blossom through indiscriminate cutting; they would, in cutting off flowers, perhaps remove buds that would supply next year's crop of bloom, and then wonder why

ham is very fine indeed, the orange scarlet bloom being superb. Margaret Atlee, deep cream pink is magnificently grown at Castlemilk, and, although some criticise the colour, it is not easily surpassed. Royal Purple, seen in a few blooms only, does not look nearly so well as in a bunch, when the colour shows splendidly. It is by far the best of its colour. Morning Mist is likely to make its way into favour for decorative work. It is a delightful combination of French grey on a cream groundwork. Pathfinder is capital; and R. F. Felton, as grown at Castlemilk, is not surpassed by any of its shade of lavender. King Manoel is the favourite among the maroons. Mr. John Jeffrey, Sir Robert's gardener, gives Maud Holmes the preference among the crimsons, and grows it magnificently. Melba is favoured, and Boadicea is very satisfactory.—Ess.

The Deciduous Cypress.—I was much interested in the note on this grand tree by "H." in the issue for July 10, page 342. In a Hampshire garden there is a fine specimen growing about twenty feet from the edge of a pond, a gravel path and sloping lawn intervening. The "knees" of the roots, since they were not cut, have become very conspicuous. In some cases I have heard of the knees growing to a height of about eighteen inches above the level of the ground. When I first took charge of the garden I found that the scythe had been used in the cutting of the grass, and the exposed roots were cut, too. This mutilation I stopped. When I measured the tree about fifteen years ago it was more than one hundred feet high, and 14 feet round the trunk at 4 feet from the ground. The trunk was branchless to a height of about twelve feet.—G. G.

New Potatoes.—The appeal by the Board of Agriculture, urging the public to refrain from consuming the new crop of Potatoes while so large a stock of old Potatoes remains available and in good condition for the table, deserves the careful attention of everyone at the present moment. May I, however, remind your readers that the old Potatoes on hand can also be put to another use? In response to the advice given last August, considerable quantities of new Potatoes were then planted, which gave excellent returns, and visitors to the Royal Horticultural Society's exhibition in November last saw splendid examples of Potatoes grown from tubers planted in August. But even better results can be assured if old Potatoes are planted during the next four weeks. All that is needed is to choose the soundest tubers, and either plant them at once on any freshly dug ground or set them up on end for a fortnight to encourage "sprouting," and then plant. New Potatoes in November and December are always acceptable, and the addition to the national food supply would be very great if the present planting of old Potatoes were generally adopted. Whether the public buy new Potatoes now or not, it is almost certain that growers who depend upon the early market for the remunerative prices obtained will still lift their crops, as in many cases the land thus cleared is wanted immediately for sowing some "catch crop," which in its turn helps to swell the national food supply. The public cannot be too often reminded that great additions to the food supply can be ensured by sowing in July and August many valuable vegetable crops, such as Cabbage, Carrot, Onion, Lettuce, Dwarf Beans, Globe Beet, Peas, Spinach, &c.—ARTHUR W. SUTTON. [We publish with pleasure Mr. Sutton's letter, which supplements the advice we have been giving readers for several weeks past.—Ed.]

the plants were a failure—did not bloom. There is a vast difference in dealing with flowering shrubs and flowers on annuals such as Sweet Peas. Even in removing faded flowers much injury can be done unless the workman understands the plants he is dealing with. Many persons cut flowers at any hour during the day; but when a time can be chosen, the early hours of the morning are best, as the stems are more charged with moisture.—SHAMROCK.

Sweet Peas at Castlemilk, Scotland.—Sweet Peas are among the specialities in the gardens of Sir R. W. Buchanan Jardine, Bart., at Castlemilk, Lockerbie, Lady Buchanan Jardine being a great admirer of these beautiful flowers. The new varieties are secured for trial, but some of the older ones are too good to discard. This year the Sweet Peas are very fine, the blooms being large and well coloured. Among those noted were, Elsie Herbert, classed as picotee-edged with white ground. The picotee edging is not so marked as to be stiff by any means, and the flowers at Castlemilk are superb. Robert Syden-

The Gooseberry Caterpillars.—In your issue of July 10, page 342, you have an article on Gooseberry caterpillars. For some years the common green caterpillar, which comes in the spring, did great damage here, and we turned on all hands to pick them off. Seeing how easily they fell off if the bushes were shaken, we surrounded the stem of each bush with soot. Every morning a man went round with a forked stick and gave each bush one sudden shake. Within a day or two there were no caterpillars left on the bushes. They sometimes got back on the bushes by passing over the dead bodies of those which had crawled over the soot; but that only needed watching and more soot added. We are now quite free from caterpillars.—THACKERAY TURNER, *Godalming*.

Narcissus Santa Maria in New Zealand.—In *THE GARDEN* of April 17, on page 188, *re* the Rev. Joseph Jacob's notes on Daffodils at Vincent Square on March 29, he wonders whether Santa Maria is known and grown in New Zealand. I may say it is, and in three different lists before me it is for sale; but I have not seen it on any of the exhibition stands for the last four or five years, and about that time I discarded it as not worth growing for exhibition, as it was too small. The colour was all right, but the perianth was no good. So far as I remember, it was a good grower and increaser.—R. GIBSON, *Riverlea, New Zealand*.

—In "Daffodil Notes," in your issue of April 17, the Rev. Joseph Jacob enquires whether *Narcissus Santa Maria* is grown and known in New Zealand or Australia. Yes; this variety has been known here, around Auckland at any rate, for many years; but, unfortunately, it is not a "good doer." In the earlier days it appeared at times on the show tables, and though now altogether out of date in this respect, it is still retained in many gardens and prized for its intense colouring. On page 90 of the Year Book, 1913, mention is made by Mr. Lowe of the flowering of a seedling yellow trumpet at Christchurch on June 4, 1912, which is very early, that part of New Zealand being quite three weeks later than Auckland. I recently saw a yellow trumpet seedling in Mr. H. Bull's garden at Epsom (a suburb), which bloomed on May 24. It reminded me of an old variety grown here under the name of Primrose Dame, and is the earliest bloomer that has so far come under my notice.—A. E. GRINDROD.

Rose Neige d'Avril.—Last year I wrote a note in *THE GARDEN* drawing attention to this climber as one of the finest of early flowering varieties. Another year's trial induces me to send a further note emphasising its value. My plant is growing in a border next a wall, trained up a pole. The uppermost branches were bent over towards the pole, forming a huge weeping head some 10 feet high. The great freedom in which its pure white blooms in clusters are produced the first week in June renders the variety especially valuable. The opening stages of the blooms display deep yellow anthers, which gradually pass away from the semi-double flowers. The growth and foliage, too, are all that could be desired.—E. MOLYNEUX.

Cypripedium Calceolus in Switzerland.—I had the pleasure of finding last spring in its wild state a flourishing colony of *Cypripedium Calceolus*, and the habitat is interesting in view of its rarity. The plants were growing on a steep northern slope, among thick sphagnum and under the

shade of Firs, and an eminent Swiss authority tells me this is their typical habitat. This fact may interest your correspondent "C. Q.," from whom you published a letter on June 13, 1914, as he mentions having been told to look for the plant "in turf in very gritty, fibrous limestone soil in full sun." This beautiful Orchid is, unfortunately, becoming rare in Switzerland, owing to its having been so much sought after, so I am hoping that the site of my colony may long remain a secret.—LUCY JOSHUA, *La Corbière, Estavayer le Lac, Fribourg*.

Railway Botany.—The railway traveller with a taste for natural beauty may often find agreeable occupation in observing the vegetation of the railway banks. A monograph on railway botany would be an entertaining book, and useful, especially to those who travel by the more leisurely lines. The floral display of *Centranthus ruber*, the Red Valerian, on the railway banks near Gravesend, and to a lesser extent on the London, Chatham and Dover Railway, is most impressive, and is much remarked upon. It appears in dense masses, almost clothing the whole bank in places, but is often seen in large patches, contrasting beautifully with Whitethorn, dwarf Elder, grasses and other wild growth. These banks are worth studying as an object-lesson in wild gardening. This Valerian is one of the best subjects for growing under trees, where any covering of the ground is difficult and Ivy objected to. Its ample dark, glossy leaves make it a feature even out of bloom. I have never seen this Valerian on railway-sides in the North. Earlier in the year Wallflowers are a feature on the same railway, though only where the chalk is so exposed as to make rank vegetation impossible. It has been asserted that Wallflowers were first cultivated from plants obtained from the rocks of Edinburgh Castle, but the railway banks prove it indigenous wherever similar conditions are found. [Such examples may be estrays from neighbouring gardens.—ED.] The presence of *Colutea arborescens* on railway banks in the East of London and within City limits is very striking. This Bladder Senna is a handsome shrub of about fifteen feet high when well grown. Its presence on the railway-sides in so unfavourable an atmosphere proves its adaptability to sites where better subjects would fail. Its curious seed-pods, which succeed the yellow flowers and are borne in such profusion as to almost cover the plant, give a quaint appearance. Introduced from the Continent in the sixteenth century, there are six species of *Colutea* in cultivation, though all are somewhat neglected. They can be readily raised from seed. Heaths in several varieties are quite a railway-side feature in the uplands of Surrey and Hants, as well as in the northern regions where Heath is prevalent. On the line near Swanley it is abundant, and associated with Silver Birch the effect is very pleasing. That railway banks are worth scientific planting would have been demonstrated long ago but for the conflict of interests in their proprietorship. As it is, they are pleasing evidence of Nature's tendency to invest with beauty what the hand of man has made unsightly.—HURSTCOT.

FORTHCOMING EVENTS.

August 4.—Royal Horticultural Society's Fortnightly Meeting and Exhibition, Vincent Square, Westminster, 1 p.m. to 6 p.m.

August 7.—Société Française d'Horticulture de Londres, Monthly Meeting.

THOUGHTS AFTER HOLLAND HOUSE SHOW.

BY THE REV. JOSEPH JACOB.

JUST as the ladies of a house-party love to gather together for a good talk after the last guest has gone and before they "turn in" for what is left of the morning, so for the keen gardener the talking over what has been seen and the comparing of notes are the finishing touches to his enjoyment of a big show.

I met a friend who had been to the Holland House Show as I was journeying to my sister's after the second day, and we at once fell to work. The one Paul's Scarlet Climber Rose, and the other Paul's soft pink single Rose Butterfly had taken his fancy; had I seen them? Yes, I had. Had he seen what I thought one of the prettiest and most striking bits in the whole of the five large tents—E. J. Hicks' magnificent set-out of Princess Mary, the rich bright crimson single—the Rose that, if it behaves well, must be one of the greatest of all bush Roses in the future? No, he had not. Had I seen Bunyard and Sons' splendid light blue Delphinium Queen Mary? I had, and I had thought it very fine, and coming to Holland House fresh after a long Delphinium morning at Wisbech, I marvelled when I saw it had received no award. When, later on, I saw the "silver-gilt Flora" given to as fine a lot of hardy Ferns as anyone need wish to see, I came to the conclusion that these Council signs of approbation are very like the wind, for no one can tell whence they come or whither they will go. Enough; I have exercised my Englishman's right of a growl, and I now pass on to what I have to say, much relieved.

One of the great men of ancient history once searched the city in which he lived for an honest man, but in vain. He should have been at Holland House. "What jolly old stone vases you have, Mr. Jones!" I remarked as I saw the extremely pretty pergola, pigeon-cote, vases and seats exhibited from Horsecombe, near Bath. "Fakes, Sir, nothing but fakes. I assure you, Sir, that that hundred year old seat was not half made when we began to pack our truck last Monday evening." Mr. Herbert Jones may not have the secret of perpetual youth, but he undoubtedly knows how to give the impression of age. I thought I recognised an old friend. Readers will do the same when I tell them it was the stone that Messrs. Carter and Wallace use so much in the "formal garden" displays.

Bath, "Beaus" and Begonias.—Blackmore and Langdon's beautiful batch of brilliant Begonias were the "beaus" of the show. The Coronation Cup went home with them. Such a display was only possible because a hanging-on character has been slowly evolved, and we need no longer be afraid to look at a flower. What beauties some of them were! Lord Methuen, scarlet; Mrs. Cuthbertson, pink; Lady Cromer, pink, edged pale blush; Mrs. W. L. Ainslie, yellow; Mrs. R. Caulfield, deep rose; Mrs. James Thornton, white; and Irene Tambling, orange. What a hybrid Lily Amos Perry was! Grove, the Lily king, is reported to be more than satisfied with the new-comer. Roughly speaking, it is a magnified and refined *Hansonii*, quite Jersey butter yellow and much spotted. The daily Press fixed on Mr. Gurney Fowler's *Odontoglossum Georgius Rex* as the flower or plant of the show,

but I am inclined to think they were wrong, and that they should have come here.

I did like Wallace's Eremuri. Twenty years' work was in that small group—Bungei and Olgæ, the old parents, and all their grandchildren and great-grandchildren around them. How proud the parents must have been to see how Shelford, Sir Michael, Primrose Queen and White Queen have got on in the world!

Miss Willmott's garden must be like a conjuror's hat—quite as inexhaustible and as full of surprises. Some lovely vases of the beautiful *Lilium regale* came from there. It is like a shortened *Lilium Harrisii* with delightful broad rose markings down the centre of the exterior of each petal or segment, which in this variety are joined together. Miss Willmott told me it did not like peat, and that it was perfectly hardy and would grow in any good, well-drained garden soil. If only it is a "doer" like *testaceum* or *pardalinum*, we have in *regale* a most useful and ornamental plant.

The most out of the common exhibit was that of Macdonald's fancy Grasses. There is an opening in this direction. Few and far between are the gardens where much attention is paid to them or where any but the most ordinary are to be found. *Glyceria spectabilis*, *Arrhenatherum bulbosum variegatum*, *Aira atropurpurea*, *Elymus glaucus* and the semi-hardy *Eulalia gracillima* were among the more striking. Bees always have a more or less quantity of new or rare flowers. The white *Erigeron Edina* cannot help being very good for cutting. It is a rather small counterpart of the well-known *speciosus*.

Sweet Peas were very much in evidence. The supply of novelties is well-nigh inexhaustible. It is not often that such a distinct colour turns up as that found in last year's Royal Purple. Cream grounds seem to be still the rage, and dainty, fresh-looking flowers like Mrs. A. G. Gentle are overlooked.

But who saw the last new *Primula*, I wonder—*Primula nutans*? It was found by George Forrest in China, and is very, very new indeed. *P. capitata* with the flower-head elongated may give an idea of the looks of the new-comer. *Hemerocallis Golden Bell* is a decided step in the right direction. The individual flowers are like yellow Madonna Lilies and as large as a good-sized coffee cup.

Lakeman's *Carnation Lieutenant Shackleton* (apricot, spotted and flushed with rose) and Dutton's rose and white *Perpetual-flowering* one are both down on my list; so, too, is a short note about the rich crimson *Thyme*, *Thymus Serpyllum coccinea major*. A patch on rockwork shows up well. With *Hedera dentata variegata*, the fine large variegated, heart-shaped leaved Ivy shown by Mr. L. R. Russell, I must conclude, hoping that these few stray thoughts and notes may be found useful and interesting when read in conjunction with the full account in last week's issue.

SEASONABLE NOTES ON CARNATIONS.

Layering.—The propagation by layers of Malmaisons and of border and show kinds of Carnations and Picotees now engages the attention of growers. There is no accepted date when any of these are propagated, some layering at the earliest moment, once the shoots are hard enough to manipulate, and these invariably form roots in a shorter time than those which are deferred. The best cultivator of Malmaisons I know does not layer his plants till well into August, but the general run of growers would hesitate to wait so

which is the usual practice. Each method has its advantages.

The better class of Picotees and show Carnations are usually cultivated in pots, and though these may be propagated in the same manner as Malmaisons, though the protection of a frame is not essential, the old method of layering in the pots in which the plants are growing is as useful as any. It has the one drawback that shoots growing up the stem cannot be layered, whereas, when the balls are plunged, every shoot can be brought close to the rooting medium. There being little space on the surface of the pot plants to introduce a little light compost to promote the production of roots, 1 inch or 2 inches in depth must be

removed from the outer circumference of the ball, and the space filled with compost, into which the layers are pegged. Now, one of the chief means whereby the tyro incurs loss in layering is by breaking the shoots partly or altogether off the parent plant. On the other hand, it is a rare occurrence for an adept to lose any. Each, no doubt, has his own method; but perhaps the simplest and not the least successful is to twist the part of the shoot between the bit to be layered and the stem of the plant, just enough to make it easy to move in any direction on the part twisted, and so obviating breakage anywhere. The operation requires both hands. The fingers and thumb of one hold the shoot immovable while those of the other are making the twist that renders the shoot amenable to disposal. Some are apt to slit the stem to such a length that the tongue is far too long. Half an inch at the most is quite enough. Some kinds root so freely that a mere notch, to be covered with soil, is sufficient.

I have seen a market-grower propagate a large number by notching and merely fastening each layer to the surface of the soil by means of a stone. All he wanted was just a few roots, and his end was gained satisfactorily in the manner described. Though layering is the recognised method of propagating a new stock of plants, cuttings of the right sort root freely if inserted in October, provided a little bottom-heat is allowed and the rooting medium kept so moist that the leaves never droop. This is a rapid way of increasing stock, and in this year, when garden labour is so generally short, it may well be adopted where time cannot be spared to layer the required number.

R. P. BROTHERSTON.

THE MANNA ASH.

(*FRAXINUS ORNUS*.)

The accompanying illustration represents a fine specimen of *Fraxinus Ornus*, a little-known but very beautiful hardy Ash. It is a native of Southern Europe and Asia Minor, and has been cultivated in this country since early in the eighteenth century. Notwithstanding its early introduction, one seldom finds really good specimens in gardens.



A NOBLE SPECIMEN OF THE MANNA ASH, *FRAXINUS ORNUS*, IN AN ESSEX GARDEN.

long. The now accepted method with Malmaisons is to turn the plants out of their pots in order to plunge the balls in a bed of soil in a cold frame, each ball being inclined so that the shoots may with the greatest facility be operated on. It facilitates the work to make the cuts before plunging the plants, and the best, which are not always the largest, shoots should be selected. One way of re-establishing stock which has become unhealthy is to root only the ends of the shoots, preserving no more than enough to provide a piece that will form roots. Once established, these small pieces grow in a much faster ratio than larger pieces, especially if disease is present. My own plan for many years was to layer into small flower-pots instead of into a bed of soil,

As will be seen by the illustration, it makes a noble tree 50 feet or more in height, and during May it is covered with large, creamy white inflorescences. These are particularly graceful, and a tree in full bloom is a very beautiful sight. According to Mr. Bean in his new work on trees and shrubs, Manna sugar is obtained from the stems by incision. The tree illustrated stands in the grounds of Brooklands House, Romford, the residence of Mr. G. Dunball. It is nearly fifty feet high, and the trunk has a diameter of nearly two feet. It will thrive in almost any good, well-drained soil.

A BEAUTIFUL CHILIAN SHRUB.

(EUCRYPHIA PINNATIFOLIA.)

AMONG the many choice shrubs hardy in the favoured West and South-West Counties, few are more beautiful or highly prized than the subject of this note. It was introduced to this country from Chile as long ago as 1859, and until quite recently the original plant stood in the Coombe Wood nursery of Messrs. James Veitch and Sons, thus proving that when well established it is really much hardier in the London district than many suppose. Its flowering season is July-August, when its large, pure white blossoms make a charming feature in the garden. The young plants are rather difficult to establish, and should be given soil composed mainly of peat and leaf-soil. Mr. Bean states that at Kew they have been most successful in establishing young specimens by planting them in beds of Heather, the latter screening the roots from scorching sun. It is such a beautiful shrub that, once established, it will fully repay any trouble entailed in its early stages.

CLARKIAS FOR THE CONSERVATORY.

VARIETIES of *Clarkia elegans*, especially Firefly and Salmon Queen, have now become very popular as conservatory plants. The usual practice is to sow in the autumn, winter the plants in a greenhouse in small pots, and finally shift them into 7-inch or 8-inch pots. By this method very fine specimens can be raised, the only drawback to the system being that the young seedlings are very apt to damp off during the dull days of winter. However, they are so beautiful and fresh-looking during late spring that they are well worth the trouble entailed. Free ventilation on all favourable occasions will do much towards dispelling damp.

A method of obviating damping off is to sow in the spring instead of the autumn. Seed should be sown in a pan or box in early February and germinated in very gentle heat. As soon as the seedlings can be conveniently handled, they should either be pricked off into 5-inch pots, five in a pot, and in due course be shifted into 7-inch pots, or be pricked off into 6-inch pots and flowered in them.

As soon as they have taken to the soil in the pots, they should be transferred to a cool greenhouse and kept near the glass. Treated thus, the plants will begin to flower early in June, at least six weeks before those sown in the ordinary way in the open garden. CALEDONIA.

STREPTOCARPI AND THEIR CULTIVATION.

THE advent of the red-flowered *Streptocarpus Dunnii*, which was discovered in the Transvaal in 1884 and first bloomed in May, 1886, proved to be of very great importance to horticulture in general. It was a happy thought of Mr. Watson of Kew to cross this species with *Streptocarpus Rexii* and *S. parviflorus*. From the *Rexii* cross was obtained *S. kewensis*, and from *parviflorus* was raised *S. Watsonii*. Both of these were given first-class certificates by the Royal Horticultural Society in 1887. Thus was the foundation-stone laid of the *Streptocarpi* of to-day, though some of the several species introduced since that time have been to a certain extent employed by the hybridist; but none has exercised so great an influence as

kinds of *Streptocarpus* is that from seed sown in heat early in the year, plants may be obtained which will flower throughout the summer and, under favourable conditions, well on into the autumn. The flowers last well in a cut state, and for some kinds of decoration are very useful. If cut with stems as long as possible, they are very light and elegant in appearance.

Cultivation.—Seeds should be sown during the first half of February, as then the young plants will have a long growing season before them. Whether sown in pans or pots, the utmost care must be taken in carrying this out, as the seeds are very minute, and the seedlings at first correspondingly delicate. The pans or pots must be quite clean, well drained, and filled to within a third of an inch of the rims with a good light compost. Most gesneraceous plants are very fond of a liberal quantity of leaf-mould in the soil they grow in, and the several forms of *Streptocarpus* form no exception to the rule. A suitable



A FLOWERING BRANCH OF EUCRYPHIA PINNATIFOLIA, A BEAUTIFUL SHRUB FROM CHILE.

S. Dunnii, with its marked break away in colour from what had hitherto been a genus of white or blue flowered plants.

Several raisers have played a part in the production of the present-day race, which now in popularity vies with the *Gloxinia*; indeed, by some the *Streptocarpi* are preferred to the others, though on this point opinions will, of course, differ. In place of a practically unknown and undeveloped race of plants, which was the case a little over a generation ago, we have now an exceedingly useful group where a display of flowers has to be kept up at all seasons.

The best forms now are exceedingly floriferous, with compact masses of large, bold blossoms. The range in colour is very great, varying from pure white through different shades of pink and carmine to deep red or crimson, while in many the blue, violet and purple tints are delightful. Not the least attractive are those of a pure white, pencilled mainly in the throat with carmine or purple. A feature in favour of these hybrid

compost in which to sow the seeds may be made up of one part loam to two of leaf-mould, and about half a part of silver sand. It is a good plan to sterilise the soil before use, after which it should be sifted through a sieve with a quarter of an inch mesh, putting the rougher portions that do not pass through the sieve on one side to place immediately over the crocks. The soil should then be pressed down moderately firm and made quite level.

Before sowing the seed, the soil should be moistened either by watering through a very fine rose or by standing the receptacle nearly to the rim in a vessel of water, which will enter through the hole in the bottom and thus wet the whole of the soil without disturbing the surface. Placed then in a shaded part of a warm structure, that is, where a temperature of 60° to 65° is maintained, the young plants will in due time make their appearance. Until this happens a pane of glass should be laid over the pot, in order to maintain a uniform state of moisture. The seed is so minute that

when it is sown some cultivators do not cover it at all except with the glass, while others sprinkle just a little dry silver sand on the surface. It is most essential to take care that the seed is sown very thinly. It may be noted that it sometimes germinates in a rather irregular manner. When the young plants are large enough to conveniently handle, they may be pricked off into pans or boxes, using much the same kind of compost as that in which the seeds were sown. From the delicate nature of the young plants this must be carefully done. The temperature of a warm house and a shady spot therein are necessary for the young plants. When sufficiently advanced, they may be potted off singly into $2\frac{1}{2}$ -inch pots, from which the strongest-growing plants may in due course be shifted into pots 4 inches to $4\frac{1}{2}$ inches in diameter.

During the winter the plants should be put in a temperature of 50° to 55° and the soil kept moderately dry, though on no account must they be parched up, as, unlike Gloxinias, they do not form a solid tuber. Then, about the end of February or early in March, they may be potted, equal parts of loam and leaf-mould with a little sand being very suitable. Under the influence of additional heat they will soon start into growth,

TOTLEY HALL, DERBYSHIRE.

DOWN the swiftly flown days of bygone years come memories of ancient pleasaunces, where in peaceful fashion the old-world flowers blossomed from year to year ever the same. Here the white Jessamine spread its fragrance on the summer breeze,

and below it the Fuchsia bush drooped graceful boughs perennially over the sweet-scented Musk. Though generations of happy and contented owners passed along the garden paths, well pleased with the display, yet the years in their flight brought little change to the flowers. "Men may come, and men may go," but the garden brought forth its changeless beauties in an abiding peace.

Not so with the garden of to-day! The solitary toiler of old with his scythe in the early hours of the May morning is seen no more. His labours on the lawn are perchance rushed through by a rapid and noisy engine, and his leisurely work among the flower borders is replaced by the efforts of a staff of gardeners skilled in different branches of their profession. In the garden of to-day

with vistas of powdery white stalks, erect as maypoles and crowned with dazzling whorls of blossom. To those who, like William Blake, can see

"The world in a grain of sand,
And heaven in a wild flower,"

this little rock and herbaceous garden is indeed, like all other blessed places where flowers flourish, a Paradise on earth.

M. E. M. W.

SOME INTERESTING ORCHIDS AT KEW.

THE current issue of the *Orchid Review*, published by Frank Leslie and Co., 12, Lawn Crescent, Kew, contains the following article on Orchids at Kew. This, we feel sure, will be read with interest by all Orchid-lovers.

"Several very interesting Orchids are in bloom in the Kew collection. A plant of the rare Central American *Epidendrum porpax* is flowering very freely, its short-scaped, solitary purple flowers recalling to some extent the smaller *E. Matthewsii*, both of them belonging to the section *Nanodes*.

Camarotis obtusa is another rarity, a native of the Himalayan district, and recalling somewhat *C. purpurea*, but bearing drooping spikes of light rosy flowers with a large orange-coloured crest on the lip, which gives it a very distinct appearance. *Oncidium Waluewa* is a charming little thing, bearing a short panicle of flowers barred with purple on a white ground. It was made a distinct genus by Regel, but the flowers are almost identical in shape with those of the *Oncidium pubes* set. *Eulophia paniculata* is a distinct Madagascar plant, bearing rather narrow, somewhat mottled leaves, and a tall panicle, nearly six feet high, of light green flowers, with some white and purple on the lip. *Pleurothallis lilacina* is a Brazilian species having broad, fleshy leaves and a profusion of short spikes of lilac purple flowers, the whole plant only a few inches high. *Listrostachys forcipata* is bearing five spikes of its very pretty semi-pellucid white flowers, and its equitant leaves recall those of *Oncidium iridifolium*, to which it bears some resemblance in habit.

"*Megaclinium minutum* is one of the smallest species in the genus, and is bearing several spikes of its red-purple flowers, situated on either side of a curious flattened rachis of similar colour, making

it quite an attractive little plant. *Nephelaphyllum pulchrum* var. *sikkimense* is the Sikkim form of a Malayan species, from which it differs somewhat in its stouter habit. The leaves are variegated, and the flowers are borne in a short, erect spike. *Schomburgkia thompsoniana*, a species from the Cayman Islands in the West Indies, is producing a panicle of yellowish flowers with the front lobe of the lip blackish purple in colour. Another rare and interesting plant is *Catasetum Bungeorhizii aureum*, one of the handsomest of the *Catasetums*, now bearing several



TOTLEY HALL, DERBYSHIRE: A SMALL PORTION OF THE SPRING GARDEN.

when they may for the summer be removed to the greenhouse. An occasional stimulant will at that time be beneficial, and, in order to prolong the flowering period, all the old blooms should be picked off unless seed is required. After the second year's flowering the plants may be thrown away.

As seedlings are now flowering, this is the best time to select those for growing on another year. This is the reason for giving the present article, at what might otherwise be considered an unseasonable time.

H. P.

we strive after ever new treasures of colour and form, and we realise the truth of the words,

"If little labour, little are our gains,
Man's fortunes are according to his pains."

Then surely the much-loved, much-coaxed garden here depicted should truly "blossom as the Rose"; and, indeed, it does return the watchful care bestowed on it.

Among its treasures are many hybrid bulbs and plants, and this year it produced a stately army of *Primulas*—no warriors in hues of drab, but a flaunting array of vermilion and crimson,

large light yellow flowers. A plant of *Bulbophyllum viridifolium* is bearing a fine umbel of large green flowers, and the way they radiate in a whorl, with the dorsal sepals thrown back and forming a pyramid in the centre, is very striking. The yellow *Trichopilia galeottiana* is one of the rare kinds, and is in bloom near a plant of *T. tortilis*, while hanging up near by are plants of *Stanhopea gibbosa* and *Coryanthes macrantha*, one of the largest and most remarkable species of this quaint genus. Many others could be enumerated, and there is a fine display of the usual showy species of the season."

POLYANTHUSES AND PRIMROSES.

I NOTED with pleasure the most interesting and instructive article on these flowers on page 308 of the issue for June 19. It should be most helpful to all who need assistance in cultivating plants of the greatest value to brighten the open garden in the first five months of the year. During the past thirty-five years I have grown these plants by the thousand every year, both in private gardens and otherwise, and in widely diverse localities and soils. I am convinced there is no other low-growing plant that gives the amount of colour at so small a cost when raised from seed.

In Mr. Jenkins' practical notes he directs attention to their meriting universal popularity, and deplores their being so often seen in such poor health compared with those grown and exhibited by those who grow them on a definite system, whether they are amateurs or otherwise.

Under "Division of the Plants" Mr. Jenkins makes some strong statements. I can fully endorse all he says, and I am convinced for general purposes nothing is more unwise and expensive than dividing old plants. I am aware it can be done, and is to be recommended in cases of new or very choice kinds. Then it pays to keep them on to work up stock by seed; but, as is stated, they are far less vigorous, and are generally in poor health compared with seedlings.

Some thirty-five years ago I took the Polyanthus in hand, and have been working at it ever since. During that time I have tried many things, and I am sure nothing has done so much to bring these into such prominence as raising them from seed. Neither can the seed be considered expensive. From a shilling packet a large number of plants can be obtained, enough for a small garden. I quite endorse all that is stated as to the importance of obtaining the seed from the very best strains. This high standard can only be obtained by continual selection. During my years of growing and selecting I have proved this many times.

Mention is made as to Polyanthuses growing in soils of a varied nature. In the West the soil is of quite an opposite nature to our Camberley soil, which is light and sandy. Still, last spring I saw in two private gardens in this parish from 2,000 to 3,000 plants as vigorous as any I ever grew in the West, and these were sown the March previous. I could name many others equally good.

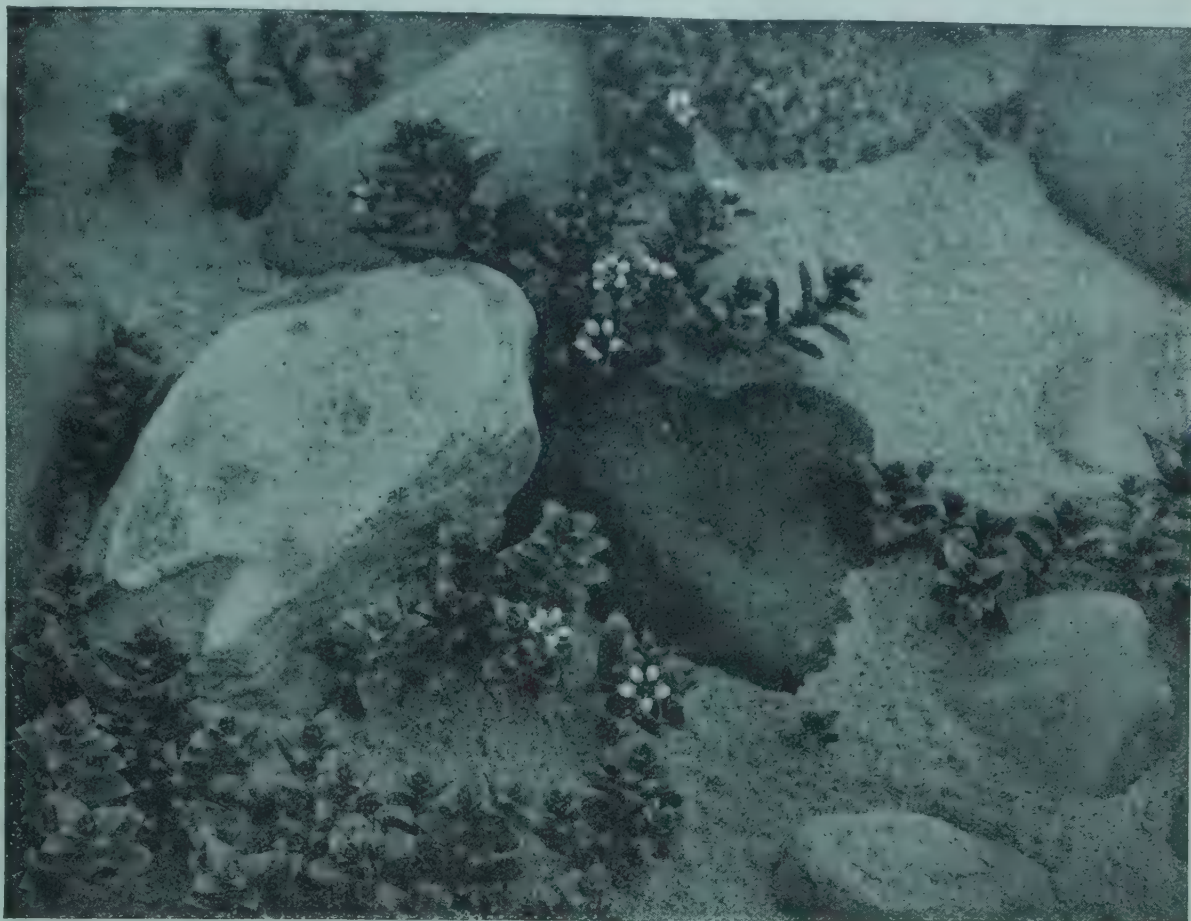
J. CROOK.

THE HEATH GARDEN IN LATE SUMMER.

THE dry weather experienced during the early part of the summer was very trying for hardy Heaths in many parts of the Southern Counties, but the plants have now recovered, and there are some interesting kinds to be noticed among them. Very prominent is the Irish Heath,

proper, has some botanical differences, the chief being that the small leaves are closely packed together in four lines up the stems, thus giving the latter a four-angled appearance.

There are a great many varieties of the Ling, and these are very useful during August and September. The White Heather of Scotland is a white-flowered form of it. There are several with white flowers, the best being *alba*, *alba rigida* and *alba Serlei*, all of vigorous habit; and *alba pumila*, of dwarf, tufted growth. *Alportii* and



SEA PURSLANE, ARENARIA PEPLOIDES, GROWING ON SHINGLY SEA BEACH.
(From "Plant Life," see page 368.)

Daboecia polifolia, with its comparatively large, balloon-shaped flowers of rosy purple hue. Grouped in a bold mass with the white variety, the plants create a welcome splash of colour at this time. A good variety noticed at Kew the other day is named *erecta atropurpurea*, the growths being more erect than those of the typical Irish Heath, and the flowers of richer rose purple colour. The Cross-leaved Heath, *Erica Tetralix*, in its several forms is also flowering well now. One of its most interesting varieties is named *mackayana flore pleno*, the dainty rose-coloured blossoms being double and of lasting quality. It is a very prostrate plant. *Alba*, as its name implies, has white flowers, and is closely resembled by *mollis*, which has, however, rather softer leaves. The Cornish Heath, *Erica vagans*, is just opening its whitish-coloured flowers on its long, slender shoots. It is a graceful, free-growing Heath that might be more freely planted. *Erica stricta*, which will make a large bush 5 feet high or more, has foliage and growth similar to the Cornish Heath, but its flowers are larger, of a decided rose pink colour, and are borne in rather dense clusters towards the ends of the shoots. It is a good one for the distant parts of the Heath garden. The common Ling, *Calluna vulgaris*, although closely resembling the Heaths

rubra have red flowers; *rosea*, rose coloured; and *rosea flore pleno*, double red blossoms. A rather remarkable variety is known as *cuprea*, the foliage and stems being copper coloured. These forms of the common Ling are amenable to the same treatment as the hardy Heaths proper, and flower at a time when their blossoms are especially welcome.

It does not seem to be generally known that hardy Heaths can be readily increased by means of cuttings, this method having several advantages over the usual system of layering. August is the best time to take the cuttings, which must be made from young, moderately firm, half-ripened shoots about three inches long. If given a sharp, downward pull, these will easily slip off the plant with a small "heel" of the older wood. This "heel" has to be cut smooth with a sharp knife, the lower leaves removed, and the cuttings then planted about one and a-half inches apart in pots of finely sifted peat and sand, two parts of the former to one of the latter. The pots should be half filled with drainage first, then filled up with the sifted material, which must be made very firm. Before planting the cuttings some silver sand should be spread on the surface of the soil. The cuttings need planting about an inch deep and very firmly, and each pot must be subsequently covered with

a bell-glass, plunged in Cocoanut fibre in a cool greenhouse or frame, and be well shaded. By the following spring the cuttings will be well rooted and ready for potting off separately into small pots, whence they can be transferred to the outdoor garden the following autumn.

PRUNING THE JAPANESE ROSES.

NOT the least important work that will demand attention in the Rose garden during the next few weeks is the pruning of the many beautiful forms of the Japanese Rose, which are now so extensively grown, and represented by the pink-flowered Dorothy Perkins and the newer single variety Hiawatha. It is characteristic of these Roses to produce new, straight shoots from the bases of the plants each year, and it is from these shoots that the best blooms will be obtained next summer, always providing that they are well ripened the preceding autumn.

It is with this ripening in view that we must soon attend to the thinning of the mass of growths which have been made during the summer, so that air and sunlight may have free access to those shoots which are retained. Many growers cut away entirely the old stems which have given the current season's display of flowers, and where a sufficient number of new basal branches have been produced to take their place, the practice is a sound one.

It frequently happens, however, that the new shoots are not sufficient, and some of the old growths must of necessity be left. When this is desirable, some old rods will usually be found which have sent out long, young, non-flowering growths, and these are the ones to leave, cutting the old stem back to the point whence the new shoot emanated. After the old wood has been cut out, the shoots retained ought to be loosely tied in position, so that they are fully exposed to wind and sun on all sides.

The above remarks apply with equal force to this class of Roses when grown as weeping standards, except, of course, that instead of the new shoots being produced at the base of the plant, they will emanate from the apex of the main stem where budding was originally done. With those that were only planted last winter it is a good plan to cut away all the old wood immediately the flowers are over, as this will throw all the energy of the Briar into the young growths.

NEW SWEET PEAS OF THE YEAR.

LAST week in London was the Sweet Pea week of the year. On the Tuesday, as our show reports indicate, the National Sweet Pea Society held its annual exhibition, and the following day about eighty members visited the official trials at Boyton Hall, Roxwell, Essex, and subsequently the seed grounds of Messrs. Alex. Dickson and Sons and Messrs. Dobbie and

blooms are very fragrant. Next in our estimation was

Old Rose.—This was on Messrs. Dobbie and Co.'s stand, and we also saw it at their seed grounds. It is a moderately large flower of pleasing, soft, old rose colour. For table decorations it will be very charming indeed.

Tea Rose, a variety that secured an award of merit at the trials, we did not think a great deal of as staged at the show, but growing at the trials it was very good and beautiful. Its colour is similar to that of the delightful old Tea Rose Gloire de Dijon, and we hope on some future occasion to see a table decorated with Old Rose and Tea Rose.

The President.—This is undoubtedly the most striking variety of the orange scarlet Sweet Peas. When Mr. Hugh Dickson of Messrs. Alex. Dickson and Sons, Hawlmark, Belfast, showed us a small bunch at Holland House Show last year, we were much impressed by the intense purity of its colour. This year the firm had a large central group on their stand, where it attracted much attention. At the trials it was good, and the flowers showed but very slight traces of "burning."

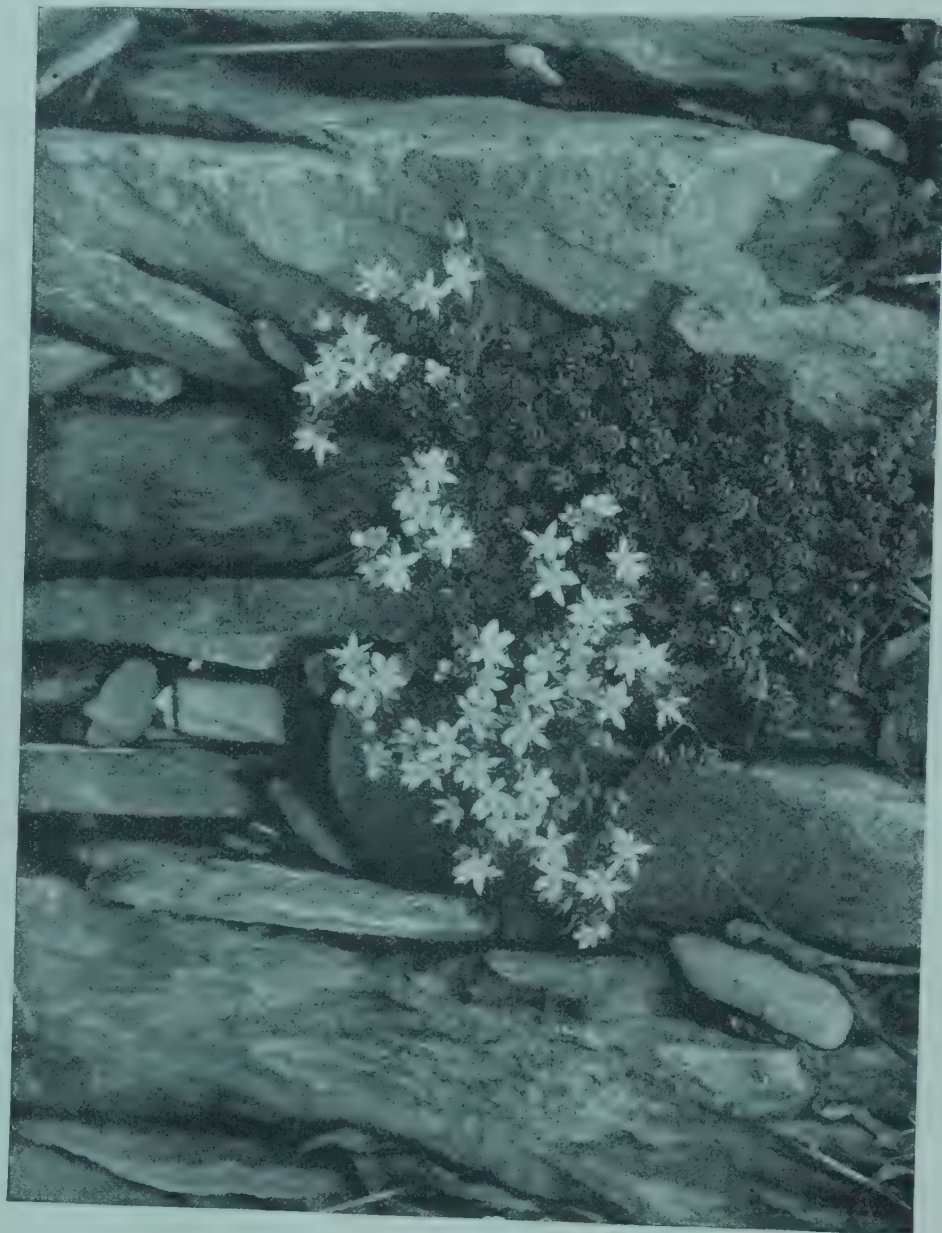
Dora (Messrs. Dobbie and Co.).—This was an award of merit variety at the trials. It belongs to the bicolor section, and for decorative purposes should prove very useful. The flower is of medium size only, the deep cream ground being heavily flushed with rather bright red.

Cream Ground Mrs. Cuthbertson.—As shown on Messrs. E. W. King's stand at the exhibition, this was a very pleasing variety. We have always regarded Mrs. Cuthbertson as one of the most beautiful of all Sweet Peas for garden decoration; hence we welcome the cream ground variation of it. Appleblossom red over the cream colour best describes this charming variety.

Constance Acomb.—This is a rather quaint, but to us pleasing Sweet Pea. A large stand of it occupied a rather prominent position in Robert Sydenham's, Limited, group. It is a big, very waved, cream-ground flower, the standard, and

in lesser degree, the wings being heavily suffused with lilac. Though by no means showy, it is interesting, and denotes a decided colour break.

Miss Burnie.—Messrs. Dobbie and Co. have in this variety a pleasing Sweet Pea that in the opinion of many just misses being first class. It appealed to us strongly at the show, and our opinion was strengthened when we saw it growing at the trials. It is a large, waved flower of splendid habit, the pure white segments having just the faintest suspicion of lilac rose bush running through them. With age this tint almost disappears. For decorative purposes it should prove a very charming variety indeed.



THE ENGLISH STONECROP, *SEDUM ANGLICUM*.
(From "Plant Life," see page 368.)

Co. at Mark's Tey, near Colchester. It is to this London exhibition and the society's trials that the enthusiast looks for novelties, and usually he is not disappointed. In giving particulars of what we consider the best, we do not expect that everyone who saw them will agree on this point. The variety that we admired most of all was

Mrs. E. Wright.—Mr. Robert Bolton had a wonderful bunch on his stand, and also a fine vase of it in the special class for fragrance. It is a large, beautifully waved flower with pure white ground. Wings and standard are all very daintily edged deep lavender blue, and this colour is also lightly suffused with the white ground. The

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Early Vines.—If the rods are infested with mealy bug, attention must be given to the pest as soon as all the Grapes have been cut. If this work is persevered in at intervals from now till the Vines are again started into growth, much time will be saved during the busy season of spring. The borders must be well soaked with water as soon as the crop has been cleared, and if in good condition, diluted liquid manure will be of great benefit. Borders which require renovating may be attended to now. If they are both inside and out, the inside borders only should be dealt with this season. The whole of the roots inside may be lifted and replanted in new soil, and if the work is done carefully and expeditiously, there need be no fear for next season's crop.

Strawberries.—The layering of Strawberries will now be finished, and attention must be given to the potting of the most forward plants. These may now be removed from the parent plants and placed on a bed of ashes in a shady position. The soil must be prepared for potting the whole of the plants and placed under cover. Loam mixed with a little old Mushroom-bed manure, wood-ashes, soot and crushed bones make a suitable compost for Strawberries. Let the plants be potted firmly and not too deep.

Plants Under Glass.

Ferns.—Well-grown specimen Ferns are always useful for decorative purposes, either for grouping or as single specimens for vases. The plants which were potted in the spring must be given plenty of room to allow them to develop into shapely plants. The newer varieties of *Nephrolepis* are most desirable subjects for indoor decoration.

Anthurium crystallinum.—This makes a handsome plant when well grown. The plants must be given every encouragement to develop their large leaves. Plenty of heat and moisture are required, and abundance of water must be afforded while growth is active. To prevent damage, the leaves should be carefully secured to stakes.

Browallia speciosa.—Batches of this beautiful greenhouse annual may be had in flower during the whole of the summer and autumn. Another sowing may be made now for flowering in the autumn. Plants which are coming into flower may have their flowering shoots pinched back if they are not wanted to bloom now.

Perpetual-Flowering Carnations.—The earliest plants will now be well established in their flowering pots. These may be given a little Clay's Fertilizer, but stimulants must not be used too freely till the pots are full of roots. An occasional syringing with a rust specific will help to keep them free from this pest.

Coleus thyrsoideus.—A batch of cuttings rooted now will make useful plants for flowering in small pots. The tops of the older plants may be removed for this purpose. Pot them singly into 2½-inch pots, and when well rooted repot them into those of 3 inches.

The Flower Garden.

Sweet Peas.—Plants in tubs must be liberally supplied with stimulants, and dead flowers should be removed daily. The plants which are being grown for supplying cut flowers must have their flowers cut regularly, or they will quickly show signs of exhaustion. Sprinkle soot or artificial manure between the rows before watering, and use the hoe frequently.

Summer Bedding Plants.—It has been necessary to water all bedding plants frequently. The constant watering with clear water quickly impoverishes the soil, therefore it is necessary to sprinkle a little artificial manure or soot between the plants previous to watering.

Lawns.—During long spells of drought it is a good plan to remove the grass-box from the mower when mowing, thus allowing the grass cuttings to remain on the surface. Newly laid turf must be watered, where this is practicable, also lawns which were sown in the spring.

Ivy-Leaved Pelargoniums.—Large specimens which are growing in tubs or large pots require plenty of stimulants all through the summer. They must be gone over regularly for the purpose of regulating and tying the new growths. At the same time dead flowers should be removed.

The Hardy Fruit Garden.

Apricots.—Every precaution must be taken to protect the ripening fruits from the ravages of insects. Wasps can be trapped by placing jars half filled with beer and sugar about the trees. Earwigs are as destructive as wasps. They may be trapped in beanstalks placed among the branches. The traps must be examined every morning and the insects blown into a jar of paraffin.

Peaches and Nectarines.—The early varieties will now be ripening, and will need the same protective measures against insects as advised for Apricots. The fruits must be examined every morning when ripening, and gathered before they become too ripe. Give plenty of stimulants to midseason and late kinds, and regularly remove all superfluous growth.

The Kitchen Garden.

Globe Artichokes.—The heads of these may be cut when ready and placed in water in a cool shed if they are not required for immediate use. The plants must be well supplied with liquid manure, or the heads will be small and of little use.

Asparagus.—Plenty of stimulants must be given till growth is completed. During showery weather some suitable fertiliser sprinkled over the beds will be of considerable benefit. Keep the beds free from weeds, and see that the growths do not get damaged by strong wind or heavy rains.

Turnips.—A good sowing of Turnips may be made now for winter supplies. Ground which has been cleared of Potatoes may be used for this crop. Give the surface a good dusting of soot; then lightly fork and level the ground. Rake the surface fine; then sow the seeds in drills about fifteen inches apart. Green Top Stone and Red Globe are both excellent varieties to grow for winter use.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

The Flower Garden.

Border Carnations.—The flowers will be approaching their best, and must be kept upright by the use of stakes, as many varieties, particularly the older ones, have very weak stems. Layering should now commence, as the young growths, or grass, is now ready for this work. After stripping sufficient foliage from the growths which are to be layered, small hillocks of new soil containing plenty of sand should be put around each plant. After pegging down the layers, watering when necessary will be the only further attention required until planting-time.

Hedges.—The clipping of Yew and other hedges ought to be proceeded with, as a second growth is not likely to appear after this date and so cause the work to be redone.

Wallflowers.—The pricking out should be done before the plants become overgrown in the seed-beds. Taking out a shallow trench with a spade and line is far better and more expeditious than dibbling them individually. After pricking out, they require to be well watered.

Plants Under Glass.

Ferns.—As most of the plants have now completed the formation of their fronds for this season, care must be taken that there is no overcrowding, as the foliage will stand much better during the short days in winter if the plants are given ample space to harden and mature their new growth. Maidenhair Ferns, if overcrowded, are very subject to damping. Ferns grown in baskets should have their roots submerged in water for a few seconds in preference to applying it with the watering-can.

Bulbs.—Freesias which were grown on after flowering in the spring should now be shaken out of their pots, the best bulbs graded out and repotted, then kept shaded in a shallow frame until growth has recommenced. They must not be covered with ashes, as in the case of most other bulbs. Orders should now be placed for all bulbs, as Roman Hyacinths and Narcissus Paper-White will soon be on the market.

Winter-Flowering Begonias.—If cuttings were rooted during March and April, the resultant plants should be ready for their final shift into flowering pots. The compost must be of an open and light nature, containing a fair percentage of peat and leaf-mould. Do not pot firmly as required by most other plants. Fumigate frequently to check and kill insect pests.

The Hardy Fruit Garden.

Strawberries.—The main crop now being over, the oldest and most exhausted beds should be trenched. If weeds are troublesome—and this is often the case owing to the quantity of hay seeds that are found among the litter used previously for mulching—the plants should first be cut over with a spade and the whole burnt. The ground must then be treated to a liberal dressing of farmyard manure before trenching.

Preparations for Planting.—A good system which should always be practised is to make a new plantation of young Strawberries each year. The experience of the late frost in May has taught me the value of such late sorts as Bountiful. While such varieties as Royal Sovereign and Garibaldi were in full flower, Bountiful was not far enough advanced to be injured by frost, the result being a full crop on this variety. Plants layered in pots are now rooting freely, and must be regularly attended to as regards watering.

Loganberries.—The plants are making vigorous growths, and now require to have the young shoots or canes tied up, but not in such a way as to shade the ripening fruit. Usually the birds do not trouble this fruit, but in dry weather it is safer to protect it with nets.

Fruit Under Glass.

Pot Vines.—Both yearling Vines raised from eyes in February and cut-back canes have completed the bulk of their growth, so that the aim after this date should be to encourage a thorough ripening of the wood. Unless a well-ventilated house can be set apart for them, they will be better removed to some position outdoors where they will get full benefit from the sunshine. Watering should be performed carefully, and some fertilisers or liquid manure must still be given to help the foliage to keep as healthy a colour as possible and also assist in encouraging the formation of good plump buds. The pinching of sublaterals should continue as long as they appear.

Young Vines planted this season should now be encouraged to ripen their wood as much as possible. More ventilation must be given and less moisture, but not restricted in such a way as to encourage red spider.

The Kitchen Garden.

Turnips.—A good breadth should now be sown for autumn and winter use. If the weather is very dry, a better and more regular germination of the seeds will be assured if the drills are watered an hour or two previous to sowing. Ground which has been used for such crops as early Potatoes or Strawberries will be available for this crop if first dug over.

Runner Beans.—To keep the plants in bearing, they must never want for plenty of moisture at the roots, and while this is being given them some quickly assimilated fertiliser should be added to the water. While growing, some shoots become detached from the stakes; these should be tied up to hold them in position until they again support themselves by entwining around the supports.

Broad Beans.—The main crop ought now to have the tops removed to help on the development of the existing pods. Some support is necessary, but a few stout stakes, with strong twine strained between, are generally sufficient. This is more necessary where other crops might be injured if the Bean plants were allowed to overgrow them.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

BOOKS.

Plant Life.*—Excellent photographs, faithful coloured plates, readable print, good paper, accurate and interesting text, and artistic binding combine to make a book which we can recommend to all who desire to gain something more than a passing acquaintance with the outside of that most interesting study, plant life.

Beginning with an account of protoplasm, easy to read and understand, and of the simplest of living things as seen in Amoeba, the author describes the structure and mode of life of organisms successively higher in the scale of life until the highly organised flowering plant is reached. He shows how the protoplasm which is the fundamental basis of all living things has its food requirements, its air supply and so on, maintained in all the different forms which plants assume. Bacteria, fungi, Algæ, Mosses, Liverworts, Ferns and their allies, and fossil plants all claim a share of attention, but more than half the book deals with flowering plants. A general account of the last is given, and then the separate divisions, Gymnosperms, Monocotyledons and Dicotyledons are discussed and their increasing complexity of structure traced.

Such a study of plants in sequence as we have outlined would be but fragmentary if the fossil remains which have been unearthed and investigated during the past century were ignored, and the chapter on "Fossil Plants" fills the gap so far as it can be filled at present. Owing to their delicate texture, plants have left fewer traces of their history in the rocks than have animals; but still, many interesting discoveries have been made and much light has been thrown upon the sequence of plant life on the earth. This aspect of the study of plant life is almost always ignored in botany books, and is, perhaps, to be counted as of little value in understanding how to grow plants. Nevertheless, it is a study well worthy of attention, if only for the aid it is to the earnest student in understanding the significance of various structures in plants, the meaning of which would otherwise be very obscure.

The latter part of the book deals with the plant's relation to its environment, and contains, perhaps, the chapters which are likely to appeal strongest to most readers. The rather difficult question of food supply is admirably dealt with, and the part water plays in furthering it, together with the complex relations of plants to their water supply, are all carefully gone into. This question, naturally, leads up to the relation of the plant to light, and this, again, to climbing plants, leaf mosaics and the like, and, by a consideration of these and similar points, the significance of the green leaf in the life of the plant is made clear.

As with animals, if a plant cannot get precisely what it wants in any ordinary situation, it may have to take what it can get in one less suited to it. Plants do not grow in Nature where they can grow best, but where they are able to compete with others and win water, light and food in the struggle. Some are driven by this struggle out of good situations, and have become so specialised in structure in the new situations which they have colonised that they are now restricted to these curious habitats. Water plants, xerophytic (or

dry country) plants, carnivorous plants, saprophytes (or plants which obtain their nutriment from decaying matter), and parasites are cases in point, and all are dealt with by the author in a masterly manner.

All plants finally settle down to form a more or less constant "formation" or "association" in Nature, based on mutual accommodation, and depending upon a nice balance between the various forces which act upon the plants. These associations come in for their share of consideration, and the author clearly shows how, when the balance between the forces is altered in any degree, the association tends to change. He discusses, too, the means by which plants increase in Nature, and shows how this frequently depends upon a variety of environmental circumstances beyond the control of the individual plant.

Altogether the author has produced a book which cannot but be of value to all students of plant life, among whom gardeners, amateur and professional, are by no means the least—a book which we can commend heartily to all seeking a reliable and intelligible account of plant life in general.

The book is singularly free from orthographical errors; indeed, we have noticed only one or two (e.g., "Hippophæ" for Hippophæ), and one illustration, that of "Rafflesia Arnoldi," on page 295, appears to be inverted. We mention these very slight oversights merely to emphasise the book's freedom from the mistakes that too often disfigure the pages of popular books on plants.

If we were asked to pick out one point in which the book particularly excels, it would not be very easy; but we think our choice would fall upon the photographs of plants in their native habitats, most of which are beyond praise—there is not an indifferent one among them. (See pages 365-6.)

ANSWERS TO CORRESPONDENTS.

MISCELLANEOUS.

TWELVE PILLAR ROSES FOR PROMINENT POSITIONS (Cicero).—Excelsa, Shower of Gold, Miss Helyett, Silver Moon, Aviateur Blériot, Sodenia, American Pillar, Blush Rambler, Grafen Ada Bredow, Tea Rambler, Lady Godiva and Lady Gay.

AZALEAS DISEASED (Mrs. Bond).—The Azaleas are attacked by the Azalea gall fungus, *Exobasidium japonicum*. This fungus causes galls on Azalea indica, and is of comparatively recent introduction. The only remedy is to pick off the galls as soon as they are observed and burn them. The fungus does not usually spread very far.

GREEN GAGE TREE NOT FRUITING (Mrs. F.).—There are many varieties of the Gage Plum. Some of them are shy bearers. Yours may be one of these. Even so, after replanting twice, the tree ought to bear by this time. There is no more effective way to bring about fertility in barren trees than this. Plum blossom is the most tender of all fruit tree blossom. Is your garden subject to spring frosts? These are annual unwelcome visitors, and may be the delinquent in your case. It may be that the flowers are infertile. Would you mind sending us a sample next spring? Were the trees, we would lift and replant again this autumn, cutting back all the strong roots to within 16 inches of the stem and slightly shortening all other roots.

APPLE-GROWING IN NOVA SCOTIA (A. C. Wyatt).—Where the soil and climate appear so excellent and in which Apple Cox's Orange Pippin appears to grow with the same freedom and vigour as does Bramley's Seedling, we should not hesitate to make a sheet-anchor of this variety and plant it largely, especially as the crop is intended for English markets, where the Apple is so well known, so much liked, and where it will always command tip-top prices. On warm soils of fair depth it does well in this country, and the tree lives to be old; but on cold, heavy soils it will canker, and is not profitable to grow for market on such soils. Bramley's Seedling and Lane's Prince Albert are both well known for their heavy and consistent bearing qualities; but the cooking qualities of Lane's Prince Albert, in our opinion, is only second-

rate, the flesh turning to a dark and unpleasant-looking colour after being cooked. However, it sells well and is much grown. A better Apple than this as a cooker is Newton Wonder, a cross between Wellington and Blenheim Orange. It is as large and handsome as the latter in colouring. When cooked, the flesh is snow white, and practically as good as Wellington, than which there is none better. We advise you to try two of our comparatively new dessert Apples (both certificated by the Royal Horticultural Society), viz., Ellison's Orange, ripe a month or six weeks earlier than Cox's Orange Pippin, and William Crump. The former is a cross between Cox's Orange Pippin and Calville Blanche, and the latter a cross between Cox's Orange Pippin and Worcester Pearmain. This is in season at Christmas. It has yellow and sweet flesh like Cox's Orange Pippin, and the high colour of Worcester Pearmain, but is considerably larger. The former is a deliciously flavoured early Apple, and the tree a free and healthy grower and good cropper. As regards the new American varieties you speak of, you must have your "weather eye" open not to miss a real good thing; but it is well to remember that it takes more than two or even three years to determine the value and character of a new Apple. Try a few by all means; but let someone else plant such largely and you benefit, or take warning, as the case may be, from such experience. As regards prices in our markets, they vary so much, according to the supply, sample and variety, that it is impossible to give a trustworthy estimate; but of one thing you may rest assured, namely, that the best samples will always realise satisfactory prices, and Cox's Orange Pippin several shillings a bushel more than any other if we except, perhaps, good samples of American Newtown Pippin. After the war, we fear many of our young fellows will not again settle down to office or sedentary work, but will want to lead a freer outdoor life in our Colonies. From what you say of the climate and soil of Nova Scotia, it would be Paradise for such men. It would be interesting to them to hear from you through THE GARDEN, giving particulars of the industry of fruit-growing, climate, price of land and facilities for obtaining the same, whether there is a market for labour, and the nature of remuneration.

NAMES OF FRUIT.—R. W. C.—We regret we cannot name the Peach from the specimen sent. Can you send a more typical fruit with a leafy shoot?

NAMES OF PLANTS.—Boris.—1, *Polygonum cuspidatum*; 2, *Ulmus* species, too poor to identify; 3, *Sambucus nigra*; 4, *S.* species, probably *S. racemosa*; 5, cannot identify, too scrappy; 6, *Diervilla* species, probably rosea; 7, *Fagus sylvatica*; 8, *Populus tremula*; 9, *P. canescens*; 10, *Sedum album*; 11, *Cotoneaster* species; 12, *Sedum anglicum*.—C. C. F.—1, *Sedum*, cannot identify from scrap sent; 2, *Desmodium canescens*.—L. Blackith.—1, *Helichrysum rosarinifolium*; 2, *Spiraea Menziesii*.—W. C. Amey.—1, *Campanula lactiflora*; 2, *C. Rapunculid*; 3, *Salvia Grahamii* (hardy in sheltered places).—F. B. J.—The Rose is *De la Grifferaie*, one of the Multiflora varieties often used as a stock, especially by Dutch growers.—C. B. A.—1, Climbing Cecile Brunner probably, but flowers had fallen; 2, Psyche; 3, Souvenir de L. Vienne; 4, Goldfinch; 5, Blush Rambler; 6, Duchesse de Morny; 7, Paul Neyron; 7A, François Louvat; 8, General Jacqueminot; shrub, *Spiraea opulifolia lutea*.—R. M. E. Y.—1, *Leopoldine d'Orleans*; 2, Captain Christy; 3, J. B. Clark.—Tobar Mhuire.—The Trumpet Flower, *Tecoma radicans*.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

THE outstanding features of this meeting, held at Vincent Square on July 20, were the excellent groups of herbaceous plants, and of these the Phloxes dominated the whole. In addition, there was a magnificent exhibit of Gooseberries from Langley, and fine collections of culinary Peas and vegetables. Orchids were but sparsely shown, though there was much of interest and beauty in the groups staged.

FLORAL COMMITTEE.

Present: H. B. May, Esq. (chairman), and Messrs. E. A. Bowles, F. W. Harvey, J. Green, W. J. Bean, G. Reuthe, G. Harrow, J. W. Moorman, C. R. Fielder, J. F. McLeod, J. Jennings, C. Dixon, H. J. Jones, C. E. Shea, C. E. Pearson, J. T. Bennett-Poë, W. P. Thomson, E. H. Jenkins, G. Paul, R. C. Notcutt and J. Hudson.

Messrs. George Bunyard and Co., Maidstone, filled an entire table with hardy herbaceous plants and Lavender bushes in one or two distinct varieties, the former including the best of the herbaceous Phloxes, with *Gladioli*, *Gaillardias*, *Scabiosa caucasica* in variety, *Pentstemons*, *Eremurus Bungei* and other good things. *Campanula Standsfieldii*, in small pots, was very well flowered; it is an excellent rock plant. Of the *Gladioli*, *Pink Beauty* was conspicuous; it is coloured rose with crimson blotches. *Hypericum empetrifolium* was full of its small golden yellow flowers. Hardy flowering shrubs and Lavenders in variety were also noted, the nana or dwarf-growing sorts being prominent.

Messrs. Waterer, Sons and Crisp, Limited, Bagshot and Twyford, staged an admirable lot of herbaceous Phloxes in the leading varieties, arranging them in imposing groups in a very effective manner. *Helenium striatum*, *Eryngium oliverianum* (rich blue stems and bracts), *Campanula longistyla* (big drooping bells of rich purple), *Catananche cœrulea*, *Campanula White Star*, *Potentilla nitida alba* (silvery leaves and white flowers), *Malvastrum lateritum*

* "Plant Life," by Charles A. Hall, F.R.M.S. With 74 full-page illustrations, 24 being from photographs by the author and 50 in colour from drawings by C. F. Newall. 4to, xi + 380pp. London: A. and C. Black, 1915; price 20s. net.

Daphne arbuscula, *Pelargonium endlicherianum* and *Asclepias tuberosa* (rich orange) were all noted in an excellent group. *Sphaeralcea munroana* (with rose-coloured flowers) and *Santolina pinnata* (white flower-heads) were also noteworthy.

A new *Polyantha* Rose with silvery variegated foliage and rose crimson flowers from Messrs. George Paul and Son, Old Nurseries, Cheshunt, was named Silver Gem. It is pretty and would be effective as a bedding plant.

Messrs. Stuart Low and Co., Enfield, Middlesex, showed some excellent stands of Roses. Such as Louise Catherine Breslau, Rayon d'Or (fine golden, in splendid condition), Chateau de Clos Vougeot (dark crimson), Mme. E. Herriot, George Dickson, Louise Lilla (rich crimson), H. E. Richardson and Ophelia (flesh and cream) were all superbly staged.

The Rev. J. H. Pemberton, Romford, showed new seedling Roses, as Moonlight (white with golden-coloured anthers), Danae (yellow and cream), Queen Alexandra (single cream, rose-tinted very beautifully), Callisto (yellow, very charming), Pemberton's White Rambler, Autumn Glory (dull reddish tone), and Clytemnestra (a pretty double-flowered sort of apricot and buff tone, very effective in the mass).

Messrs. H. B. May and Sons, Edmonton, arranged a table of Rex Begonias, Hydrangeas, Lantanas and Ferns, the latter chiefly varieties of *Osmunda palustris*, *O. regalis* and *O. gracilis*. In addition there were many Fuchsias, hybrids of *F. fulgens* and *F. triphylla*, of which Corallie, Mary, Thalia and Queen of the Belgians were all distinct and good.

Mr. J. Douglas, Great Bookham, staged a superb lot of border Carnations. Such excellent sorts as Elizabeth Shifner, Bookham Clove, Hercules (a magnificent crimson), Annie Laurie (a most charming pink) Kate Nickleby (white, flesh tinted), Mrs. Elliot Douglas (fine yellow), Ziska (cinnabar red), and Dora (richest apricot) are a selection of the best.

Messrs. B. R. Cant and Sons, Colchester, had some very fine Roses in stands and baskets, such as Irish Fireflame, Mrs. Alfred Tate, Lady Hillingdon, A. Hartman (a grand red), British Queen (superb white), Mme. Edouard Herriot, Rayon d'Or and Lyon Rose all being superbly represented.

Mr. W. Wells, jun., Merstham, contributed a collection of herbaceous Phloxes in some dozen or more leading sorts.

Mr. Maurice Prichard, Christchurch, Hants, exhibited many of the showier herbaceous plants, the newer Astilbes, as Juno, Pink Pearl, Opal and Gloria (a fine red), being prominent. *Coriaria terminalis*, *C. japonica* and *Podophyllum Emodii* major (all in fruit) were highly ornamental. *Romneya Coulteri*, *Poterium obtusum* (reddish), *Spigelia marilandica* and *Campanula White Star* were among other noteworthy subjects. *Alstroemeria revoluta* is of an intense rich orange tone.

The Misses Hopkins, Shepperton-on-Thames, showed alpine in boxes with *Polyantha* Roses and other things.

Mr. Clarence Elliott, Stevenage, Herts, had a few charming alpine in pots, the best of which were *Campanula walsteiniana*, *Potentilla nitida*, *P. n. alba*, *Epilobium Dodonaei*, *Sedum leibmannianum*, *S. sexangulare*, *Oenothera mexicana*, *Campanula Hendersonii* and *Pentstemon isophyllus*, the last of brilliant scarlet colour and very elegant habit.

Messrs. T. S. Ware, Limited, Feltham, filled a full-length table with the bolder herbaceous plants, of which Phloxes in great variety, *Campanula grandiflora*, *Helenium* and *Scabiosa caucasica* were the chief. *Eryngium oliverianum* was also very fine, and *Sparaxis pulcherrima* delightful in the extreme.

Mr. Amos Perry, Enfield, displayed an interesting group of Lilies, Astilbes, Water Lilies, Phloxes and the bolder herbaceous plants, associated with Ferns. *Lilium dalmaticum*, *L. Humboldtii*, *L. superbum*, *L. Roelzii* and *L. pardalinum* were all good. Phloxes Mrs. E. H. Jenkins (snow white) and General von Heutz (scarlet) were very fine.

Mr. G. W. Miller, Wisbech, showed a mixed collection of hardy plants, which included many seasonal things.

Mr. G. Reuthe, Keston, Kent, had an extensive exhibit of alpine and other plants, such as *Dianthus microlepis*, *Hypericum laeve rubrum* (rich red), *Saxifraga mandschurica* (very distinct), *Primula littoniana*, *Campanula Raineri* and *C. acutangula* being very beautiful. *Desfontainea spinosa*, *Berberidopsis corallina* and *Tricuspidaria lanceolata* were all noted.

Mr. James Box, Hayward's Heath, staged a glorious bank of Phloxes in the leading varieties, arranging them in bold, imposing masses. *Rijnstroom* (rose pink), *Colonel Mangin* (scarlet), *Jules Sandeau* (salmon), Mrs. E. H. Jenkins (snow white), *America* (white, cherry red eye), *Albert Vandel* (the finest blue), *Le Mahdi* (violet purple), *Tapis Blanc* (dwarf white) and *Elizabeth Campbell* (pink) were among the best. *Sparaxis pulcherrima alba* and *Tropeolum speciosum* (scarlet) were very finely shown among many others.

Messrs. H. J. Jones, Limited, Lewisham, arranged an avenue of Phloxes in imposing masses in stands and in the best varieties. *G. A. Strohelein* (scarlet), *Elizabeth Campbell* (pink and white), *Rijnstroom* (rosy scarlet), *Le Mahdi* (violet), *Météore* (rosy scarlet), *Frau A. Buchner* (white), *Mme. Paul Dutrie* (pinkish white) and *Boule de Feu* were some of the best in a magnificent lot.

Messrs. J. Cheal and Sons, Crawley, arranged a collection of Phloxes and other seasonal herbaceous flowers, together with cut shrubs in variety. Among these latter the *Ceanothus* were very interesting.

Messrs. Allwood Brothers, Hayward's Heath, staged a capital lot of Carnations, such as *Wivelsfield White*, *Fairmount*, *Gorgeous*, *Salmon Enchantress*, *Benora* (white-ground fancy), *Princess Dagmar* (crimson) and *Champion* being noted.

Colonel the Hon. Mark Lockwood, C.V.O., M.P., Bishop's Hall, Romford, Essex (gardener, Mr. G. Craddock), arranged a table of single and double Fuchsias grown as bush plants in some fifty or more varieties, the plants being well grown and abundantly flowered. In another group *Trachelium caeruleum* and its white variety were well shown, the 3-feet high examples carrying handsome heads of flowers.

Messrs. Thomas Grove and Son, Sutton Coldfield, near Birmingham, showed a group of *Campanula Norman Grove*, a pretty hybrid between *White Star* and *tomassiana*, with blue horizontal bells. The plant was about six inches high and full of flower.

FRUIT AND VEGETABLE COMMITTEE.

Present: Owen Thomas, Esq. (chairman), and Messrs. W. Bates, E. Beckett, W. Pope, H. Markham, H. J. Wright, A. Bullock, P. D. Tuckett, E. A. Bunyard, A. Grubb and A. R. Allan.

Mr. J. C. Allgrove, Langley, near Slough, exhibited about a hundred dishes and plants of Gooseberries, with Currants in variety. Of the former there were double and triple cordons and standards, all bearing handsome crops of fruits. *Keepsake*, *May Duke* and *Whitesmith* (all standard grown) carried amazing crops, while *Langley Beauty*, *Surprise*, *Langley Gage* and *Lancashire Lad* were among notable dishes. *Champagne Red Currant* is a very distinct sort and a great bearer. A gold medal was deservedly awarded this magnificent exhibit.

Mr. S. Mortimer, Farnham, exhibited boxes and fruiting sprays of his new *Tomato Tip-top*. It is of a rich scarlet colour and a big cropper. The fruits are of medium size.

Messrs. Dobbie and Co., Edinburgh, staged forty varieties of culinary Peas in early, midseason and late sorts. *William I.*, *Laxtonian*, *Quite Content*, *Duke of Albany*, *Gladstone*, *Veitch's Perfection*, *Ne Plus Ultra*, *Alderman*, *Gradus* and *Senator* were noted in a large lot.

The Misses Tate and Tanner, Caldecote Towers, Bushey Heath, Herts (gardener, Mr. F. Streeter), staged an admirable collection of vegetables, which included fine Cucumbers, Mushrooms, Carrots, Cauliflowers, Peas, Lettuce, Potatoes, Beet, Onions, Marrows, Tomatoes (both yellow and red) and excellent Cabbage. A really superb gathering of the finest produce. Silver-gilt Knightian medal.

ORCHID COMMITTEE.

Present: Sir Harry J. Veitch (chairman), and Messrs. J. O'Brien, W. Bolton, W. H. White, A. Dye, W. H. Hatcher, C. H. Curtis, J. Charlesworth, Pania Ralli, J. Wilson Potter, R. A. Rolfe and S. W. Flory.

Messrs. Stuart Low and Co., Enfield, showed *Vanda caerulea*, *Aerides odoratum album*, *Epidendrum vitellinum majus*, *Cattleya o'brieniana alba*, with *Miltonias* and *Dendrobium clavatum*.

Messrs. J. and A. McBean, Cooksbridge, showed the brilliant *Odontodia Charlesworthii*, *O. lambeaiana*, *O. Thwaitesii* (of rosy red colour), *O. Diana* (very brilliant red), and the yellow and crimson *Odontoglossum Hye de Crom*.

Messrs. Sander and Sons, St. Albans, showed *Bulbophyllum balfourianum*, *Anguloa Cliftonii* (golden), *Coleogyne dayana* (with yard-long trails of buff yellow and crimson flowers), *Odontodas*, *Cattleya gigas sanderiana* and others.

SOUTHAMPTON ROYAL HORTICULTURAL SOCIETY.

SUMMER SHOW.

CARNATIONS, Sweet Peas, Roses, hardy herbaceous flowers, fruits and vegetables were exhibited in splendid condition on Tuesday and Wednesday, July 13 and 14, in a large tent on the pier and in the pier pavilion at Southampton. The general arrangements for the convenience of the exhibitors and the public are always as near perfection as it is possible to have them, under the able management of the courteous secretary, Mr. C. S. Fudge. Not only are the exhibits placed in good order, but with a view to securing a good general effect. Roses and other herbaceous flowers were well shown by Messrs. W. H. Rogers and Son, Limited, Southampton. A charming display of hardy border flowers and Water Lilies was made by Messrs. B. Ladham, Limited, of Shirley; also by Mr. M. Prichard, Christchurch. Roses were splendidly shown by Mr. Harry Richards, Warsash, Hampshire. Stove and greenhouse plants by Mr. Wills, Southampton, filled a large stage in front of the orchestra; and Perpetual-flowering Carnations staged by Messrs. Allwood Brothers, Hayward's Heath, and Messrs. Wills and Hesketh, Warsash, looked charming, the colours being very noticeable on account of their richness. Mr. James Douglas, Great Bookham; Messrs. A. R. Brown, Limited, Birmingham; and Mr. R. Morton, Woodside Park, London, were very prominent exhibitors in the classes for border Carnations. Mr. A. E. Usher, gardener to Sir Randolph Baker, Bart., M.P., Blandford, won all the principal prizes in the open Sweet Pea classes; and Mr. G. Ellwood, gardener to W. H. Myers, Esq., Swanmore Park, Bishop's Waltham, led with high-class produce in the fruit and vegetable classes.

COMPETITIVE CLASSES.

Carnations.—Mr. J. Douglas won in Class 1 for twelve vases of selfs, fancies and yellow-ground Picotees; he had *Pasquin*, *Togo*, *Daffodil*, *The King*, *Santa Claus*, *Queen Eleanor*, *Elizabeth Shifner*, *A. B. Stewart*, *Lord Steyne*, *Rose de Mai*, *Onward* and *Mrs. J. J. Keen*. Second honours went to Messrs. A. R. Brown, Limited, King's Norton, who staged fine blooms, *Mandarin*, *Rosy Morn* and *Cardinal* being the best. Third, Mr. R. Morton, Woodside Park, London.

In Class 2, for four vases of Carnations, selfs, Mr. J. Douglas again led. The best blooms were *The King*,

Pink Clove (grand), *Elizabeth Shifner* and *Bookham Scarlet* (fine). Second, Mr. R. Morton, who had *Gordon Douglas* (good); third, Messrs. A. R. Brown, Limited.

For four vases of Carnations, fancies, Mr. J. Douglas won, *John Ridd*, *Queen Eleanor*, *Lord Steyne* and *Skirmisher* being staged. Messrs. A. R. Brown was placed second. In this stand *Queen Eleanor* and *Skirmisher* were beautiful.

In Class 4 Mr. Douglas once more led with *Millie*, Mrs. J. W. Owen, *Daisy Walker* and *Lord Kitchener*; second, Messrs. A. R. Brown, Limited.

Mr. R. Morton had the best four vases of Picotees, yellow ground, with *John Ruskin*, *Eclipse*, *Santa Claus* and *Onward*; second, Mr. Douglas, *Her Majesty* being a fine bloom in this collection; third, Messrs. A. R. Brown, Limited.

In the classes for dressed blooms, shown on cards, for twelve blooms on each stand of flakes and bizarres (distinct), Carnations and fancies, Carnations (selfs), yellow-ground Picotees and white-ground Picotees, Messrs. A. R. Brown, Limited, were the only exhibitors, but the flowers staged were very fine ones. This firm had also as a result the monopoly of premier blooms. Those selected were *Gordon Lewis*, *Robert Hargrave*, *Prairie Belle*, *Professor Burston*, *Queenie* and *Margaret*. The handsome challenge cup, presented by the president, Lord Swaythling, to the exhibitor securing the most points in Division I, was also won by Messrs. A. R. Brown, Limited.

For six vases of selfs, fancies and yellow-ground Picotees Mr. H. W. Frostick, Woodville Road, Thornton Heath, London, S.E., was first. *Lord Steyne*, *Onward* and *Blue Gem* were fine flowers. Mr. Frostick had also the best four vases of Carnations (selfs), *Basuto* being very good. Mr. G. Cousins, gardener to J. A. Fort, Esq., The College, Winchester, was second.

Mr. Frostick won in the class for one vase, fancy, other than white ground, with *Lord Steyne*; second, Mr. G. Cousins; third, Mr. A. F. Tofield, *Chandler's Ford*, Hampshire.

Mr. Cousins had the best single vase, one variety, showing *Bookham White*; second, Mr. Frostick.

Rosy Morn won for Mr. Cousins in the class for one vase, blush or pink.

Messrs. Frostick and G. Cousins won in the order named for one vase of crimson or scarlet self; and for a vase of buff or terra-cotta self the same exhibitors won in the reverse order of their names.

The variety *Eclipse* won first prize for Mr. Cousins in the class for one vase, yellow ground, Mr. Frostick being second here and again first in the class for one vase, white ground, followed by Mr. Cousins.

For dressed blooms shown on cards, Mr. Cousins won in the class for six blooms of Carnations, fancies. *My Fancy* and *Rhea* were good specimens. This exhibitor had the winning six blooms of Carnations, selfs, Mrs. R. Percy Smith and *Bookham White* being good. He again won in the class for six blooms of yellow-ground Picotees. Mr. J. J. Keen, Southampton, was a close second. In the latter exhibitor's stand the variety *Clytie* was selected as premier bloom. Mr. Keen also had the winning stand of six blooms of white-ground Picotees.

Some lovely blooms were staged in the classes for vases of Perpetual-flowering Carnations. For five vases, three blooms of a distinct variety in a vase, Mr. A. E. Usher, gardener to Sir Randolph Baker, Bart., M.P., was first. He staged *Carola*, *Benora*, *Enchantress*, *Mrs. C. W. Ward* and *White Wonder*. Second, Mr. T. Hall, gardener to Ellen Lady Swaythling, South Stoneham House; third, Mr. G. Ellwood, gardener to W. H. Myers, Esq., Swanmore Park, Bishop's Waltham.

Mr. T. Hall was the winner in the class for a vase of Carnations, Tree or border varieties, arranged for effect with any kind of light foliage. Second honours went to Mr. E. F. Hart, gardener to H. Trimmer, Esq., Twyford, Hampshire; third, Mr. G. Cousins.

Sweet Peas.—The first prize, presented by the hon. treasurer, for six vases of Sweet Peas, distinct varieties, was won by Mr. S. T. White, Eastleigh. *Margaret Atlee*, *Tennant Spencer* and *Sunproof Crimson* were the best. Second, Mr. A. F. Tofield. The last-named exhibitor won in another class for six vases.

Messrs. Toogood and Sons, Southampton, offered prizes for nine distinct varieties. Here Mr. A. E. Usher won with a grand collection, namely, *King Manoel*, *Minnie Toogood*, *Elsie Herbert*, *W. P. Wright*, *Mark's Tey* and *Edrom Beauty* (very fine). Mr. W. Hodson, gardener to Mrs. Clemson, Milford-on-Sea, was a good second. *Helen Lewis*, *Etta Dyke* and *Countess Spencer* were the best blooms. Third, Mr. H. E. Wallis, gardener to Eustace Palmer, Esq., Basingstoke.

In another class for six distinct varieties, Mr. O. Nicklen, gardener to Mrs. Alan Searle, Bassett, Hants, was first. *Margaret Atlee*, *Maud Holmes*, *Mrs. Cuthbertson* and *R. F. Felton* were the best. Second, Mr. A. Maple; third, Mr. E. F. Hart.

Mr. Usher won the first prize offered by Messrs. Sutton and Sons for six bunches of Sweet Peas. He staged a very fine collection, consisting of *Thomas Stevenson*, *Anglian White*, *King Manoel*, *Clara Curtis*, *Don Alvar* and *Edith Taylor*. Second, Mr. W. Hodson, the class being well filled.

Mr. Usher also won in the class for eight bunches, the prizes being offered by Messrs. Webb and Sons, Sincerity (a good crimson), *Mark's Tey*, *Anglian White*, *Nubian*, *Audrey Crier*, *King Manoel*, *Elfrida Pearson* (extra good) and *Lavender George Herbert* being staged. Mr. Hodson was again second.

Mr. Usher also won the first prize offered by Robert Sydenham, Limited, Birmingham, for six varieties, distinct. He had *Helen Lewis* and *Robert Sydenham* very fine.

Miscellaneous Section.—Mr. C. Hosey, gardener to J. C. E. D'Esterre, Esq., Southampton, had the best single specimen stove plant and the six best Zonal Pelargoniums. Mr. T. Hall was second in each class.

Mr. E. Wills, Southampton, staged the best Palms, and Mr. T. Hall the six best Caladiums.

Mr. G. Ellwood won in the class for a bowl of hardy flowers, one variety, and also for a bowl of border flowers, mixed.

Messrs. B. Ladhams, Limited, Shirley, won in the class for twelve bunches of border flowers. Mr. F. M. Vokes, Sholing, Hants, was second.

Decorative Classes.—Mrs. E. Ladhams, Shirley, had the best table decoration, Carnation or Picotee blooms only to be used; second, Mrs. A. Maple; third, Miss Taylor, Bemerton Rectory, Salisbury.

Miss Maple, Shirley, was the winner in the class for a dinner-table decoration, Sweet Peas only to be used; second, Mrs. E. Ladhams; third, Miss Taylor.

Mrs. E. Ladhams had the best spray of Carnations, and also won in the class for an epergne of Carnations. Miss Maple had the first-prize button-holes of Carnations.

Fruit Section.—Mr. Ellwood had the winning collection of fruit, four dishes, staging grand bunches of Black Hamburgh Grapes, a splendid Melon, and fine dishes of Figs and Peaches. Mr. T. Hall was second.

Mr. Ellwood had even finer bunches of Black Hamburgh Grapes in the class for two bunches. Mr. T. Hall was second with well-finished Madresfield Court Grapes.

Mr. Ellwood staged the best-flavoured Melon.

Vegetable Section.—Mr. Ellwood won all the first prizes in the classes for collections of vegetables, six kinds in each case.

Prizes were offered by Messrs. Toogood and Sons, Messrs. Sutton and Sons, Messrs. James Carter and Co. and Messrs. Webb and Sons. The silver challenge cup offered by Messrs. James Carter and Co., Raynes Park, S.W., was won by Mr. Ellwood, who staged produce of high quality throughout. Mr. W. Hodson was second in each class referred to, and put up very fine dishes.

Mr. Ellwood had the winning brace of Cucumbers, and Mr. Usher the best dish of Tomatoes.

NON-COMPETITIVE EXHIBITS.

Gold Medals.—Messrs. Allwood Brothers for Carnations; Mr. Maurice Pichard for hardy herbaceous flowers; Messrs. B. Ladhams, Limited, for hardy herbaceous flowers, Lilies and Roses; and Messrs. W. H. Rogers and Son, Limited, for Roses and herbaceous flowers.

Silver-gilt Medals.—Mr. E. Wills for stove and greenhouse plants; and Mr. Harry Richards for Roses.

Messrs. Wills and Hesketh received an award of merit for a lovely collection of Tree Carnation blooms.

SALTAIRE ROSE SHOW.

Of the thirteenth annual show of the Saltaire Rose Society, held recently in Saltaire Park, no more appropriate description probably could be given than that applied to it by the president of the society, Mr. Oswald Partington, M.P. Speaking at the luncheon table, he said that he had attended many similar exhibitions, but he did not think he had ever seen a more gorgeous display of colour. In extent the show was below the high-water mark attained on some previous occasions, but there was still such a richness and delicacy and wealth of colour as should satisfy the most fastidious or the most cosmopolitan of rosarians.

Perhaps the highest testimony that could be given of the solidity and progress in importance of the society's exhibitions is to say that this show was of little less excellence than its forerunners, in spite of the fact that Messrs. Alex. Dickson and Sons, Limited, of Newtownards, who have in the previous twelve years consistently carried off all the premier awards, found it inconvenient to send more than a few specimens on this occasion.

A request had been made to Rose growers throughout the district to make gifts of flowers in order that these might be sold in the streets of Bradford, as well as in Saltaire Park, to swell the receipts, which are to be given, after payment of expenses, to the war relief funds. So generous was the response that some ten thousand blooms were given for this purpose. In addition an auction sale of flowers was conducted at Saltaire by Mr. H. Abbott of London. No less a sum than £50 was raised by this means in the large marquee immediately after luncheon. The class for sixty cut Roses, for which the 100-guinea challenge bowl is offered, was dropped on this occasion, but Messrs. Frank Cant and Co. of Colchester had sent a fine exhibit of sixty blooms, and the flowers were greatly admired. This collection was the first to be put under the hammer, in the language of the auction-room, and the first and only bid for it was £25, at which figure Mr. Partington became the owner. Later the Member for Shipley requested the secretary, Mr. E. Wright, to have the Roses sent to Sir Titus Salt's Hospital. To Mr. G. C. Waud was knocked down for £5 the collection of Roses shown by Messrs. Harkness and Co., Hitchin, in the class for twenty-four blooms, and these he handed back to be sold again. A single bloom was sold to Mrs. F. Foster for £1, while other purchases were made by Mr. J. J. Oddy and Mr. H. Sutcliffe Smith at £3 each. During the afternoon and evening the auction sale was continued briskly out of doors, and the various means adopted of collecting money should result in a considerable balance being available for the war funds.

SOME OF THE PRIZE-WINNERS.

In all open classes the entries were much fewer than has been usual in recent years. For this various reasons may be assigned, an unfavourable season, limited transport facilities and the absence of many gentlemen's gardeners, on military duty being the chief. Violent hailstorms have greatly damaged many of Messrs. Dickson's blooms.

In the absence practically of their unbeatable competition the principal awards went to Messrs. D. Prior and Sons, Colchester; Messrs. Chaplin Brothers, Waltham Cross; and Messrs. Frank Cant and Co., Colchester. The arrangement of distinct varieties of Roses in round baskets is found an excellent one, all the beautiful features of the flowers being well displayed.

For seven baskets the first prize fell to Messrs. Prior and Sons, who showed beautiful groups of Duchess of Wellington, Mme. Soupert, General Macarthur, Leslie Holland, William Allen Richardson, Chateau de Clos Vougeot and that perennial favourite the Lyon Rose. The group placed second, that of Messrs. Chaplin Brothers, was little inferior, some of their prettiest groups being composed of the fine deep red Lieutenant Chauré, Lyon Rose, the velvety scarlet General Macarthur and the chaste ivory white Ethel Malcolm.

In Messrs. Dickson's set were included the well-named Irish Fireflame (which arrests the attention of everyone), and the almost equally charming Red Letter Day.

Mr. A. H. Rigg showed some good examples of Lady Pirrie (of a red almost indefinable), Lady Ashtown, Hugh Dickson and Caroline Testout.

Messrs. Frank Cant and Co. secured the first award for sixteen varieties of Roses, showing some wonderfully fine blooms of Mildred Grant, Dean Hole, Mrs. Andrew Carnegie, George Dickson and Mrs. Joseph H. Welch. These blooms were so large that visitors were to be heard declaring "they are too huge!" Space would not allow of mention being made of a tithe of the finest blooms shown, but among some of the most impressive were Rayon d'Or (a lovely shade of gold), Irish Elegance (a bronzy orange in the bud, opening to single flowers of various charming shades), Mrs. Rosalie Winch and Mme. Edouard Herriot.

The display of Sweet Peas was excellent throughout in quantity and beauty of shading. Mr. Robert Bolton had a grand exhibit, including Rowena (an apple blossom pink), Surprise (shrimp pink) and Mrs. E. Wright (white, edged with blue).

The most successful amateur exhibitor was Lord North of Wroton Abbey, Banbury.

Among successful local amateurs exhibiting Roses were Mr. A. W. Hoffmann, Mr. F. Holmes, Mr. H. H. Spencer, Mr. W. A. Whitehead, Mr. J. W. Dracup and Mrs. G. Nicholson.

Carnations formed a very pleasing feature in the exhibition. Here Mr. G. C. Waud scored in two classes.

The trade exhibits were, as usual, of a high class and charming character.

NATIONAL SWEET PEA SOCIETY.

If the fifteenth exhibition of this society, held on the 13th inst., does not establish a record for numbers of entries, it will still rank high for flower quality and general excellence, while it is to the great credit of exhibitors and society alike that so representative a gathering was brought together at this time of national stress. That enthusiasm prevailed was manifested by exhibits from Wales, Glasgow, Ireland, Liverpool and other distant places, both amateurs and professional gardeners acquitting themselves well. The trade also gave both of its strongest and best. Novelties of outstanding excellence were not observed, though four received awards of merit. Following is a detailed report of the show.

Henry Eckford Memorial Class.—For twelve bunches of Sweet Peas, distinct, to consist of named varieties in commerce, the first prize—the Henry Eckford Memorial Challenge Cup, the gold medal of the society and 40s. in cash—was awarded to Lord North, Wroton Abbey, Banbury (gardener, Mr. E. R. James) for a superb lot of flowers, consisting of Rosabelle, Dobbie's Cream, Constance Hinton (white), Mark's Tey, Maud Holmes, May Unwin, E. Cowdy (scarlet), Agricola (pink), King Manoel, R. F. Felton (mauve, very fine), Audrey Crier and Orange Perfection; a really telling lot. Second, Mr. W. H. Holloway, Post Hill, Shrewsbury, whose very fine lot contained Agricola, Dobbie's Cream, Lavender George Herbert, Edna May, Edrom Beauty, Hercules, Elfrida Pearson, Mark's Tey, Sunproof Crimson, Mrs. C. W. Breamore, Mrs. Cuthbertson and May Campbell; third, Sir Randolph Baker, Bart., M.P., Blandford (gardener, Mr. A. E. Usher), who staged Barbara, Princess Victoria, R. F. Felton, Mark's Tey, Agricola and Prince George, among others. Nine competitors staged collections in this fine class.

Sutton Cup Class.—For eighteen bunches of Sweet Peas, distinct varieties, to be selected from the Classification List, the first prize—the Sutton Silver Challenge Cup, the gold medal of the society and 15s. in cash—was awarded to Lord North, Wroton Abbey, Banbury (gardener, Mr. E. R. James), who again staged flowers of fine quality. His varieties were as follows: Hercules, Rosabelle, White Queen, Robert Sydenham, Royal Purple, Princess Victoria, Barbara (good in colour), May Unwin, Dorothy (fine rosy mauve), Margaret Atlee, Helen Williams (cream and pink), King Manoel, Maud Holmes, Agricola, Mrs. Jessop (light scarlet), Dobbie's Cream and Edrom Beauty. Second, Sir Randolph Baker, Bart., Blandford, whose best vases were R. F. Felton, White Queen, King Manoel, Barbara, Mark's Tey, Mrs. Breamore, Hercules, Mrs. Cuthbertson, Maud Holmes, Elsie Herbert, Royal Purple, New Marquis, May Unwin, Dobbie's Cream and Edrom Beauty; third, Mrs. L. Cookson, Wem, Shropshire. Three only competed in this important class.

For six bunches of new Sweet Peas, distinct, four collections were staged, the premier prize going to Sir Randolph Baker, Bart. (gardener, Mr. E. A. Usher), for Mrs. Damerum (cream), Alfred Watkins (lavender), Royal Purple, Path-finder, Norvic (white) and Austin Frederick (mauve); second, Mr. T. Jones, Ruabon, who had Dobbie's Orange, Mrs. J. Palmer (rose and cream), E. Cowdy

(scarlet), Don Alvar (mauve) and Duchess of Portland (pink and cream); third, Mr. L. Webb, Lower Terrace, Welshpool.

Classification Class.—Eighteen bunches, distinct: First, Mr. J. Smellie, Busby, near Glasgow, who staged very finely Rosabelle, Duchess of Portland, King Manoel, Lady Evelyn Eyre (pink), King Alfred (scarlet), Elsie Herbert, Margaret Atlee, King White, John Ingman, Mrs. C. W. Breamore (creamy buff), May Unwin, R. F. Felton, Mrs. Cuthbertson, Royal Purple, Agricola, Hercules, Dobbie's Cream and Maud Holmes (reddish scarlet); second, Mr. William Bond, Formby, near Liverpool, whose T. Stevenson, Lady Evelyn Eyre, Margaret Atlee, Dobbie's Cream, Lady Miller (salmon), King Manoel, R. F. Felton, King White and Elfrida Pearson were very good. Mr. H. Tyson, The Lodge, Bedford, was third. Five competed in this important class, the quality being excellent throughout.

Twelve bunches of Sweet Peas, distinct, limited to growers of not more than 1,000 plants: First, Mr. F. W. Franks, Loampits, Tunbridge, Wells (gardener, Mr. W. Humphrey), whose fine lot contained Barbara, Hercules, King Manoel, J. Ingman, Lavender George Herbert, Mrs. Breamore, New Marquis, Elsie Herbert, Thomas Stevenson, Elfrida Pearson, Sunproof Crimson and Doris Usher. The flowers were of superb quality. Second, Mr. Arnold Hitchcock, Brook House, Tiptree, whose best were Dobbie's Scarlet, Illuminator, Royal Purple, Barbara, Hercules, Thomas Stevenson, Dobbie's Cream, Agricola, Duplex, R. F. Felton, Edrom Beauty and King White. This also was a strong and good lot. Third, Major Molson, Goring Hall, Goring-by-Sea, Sussex. Nine competitors staged, the majority showing flowers of high quality.

For one bunch of a seedling Sweet Pea not in commerce, fifteen competitors entered novelties, the prize, a silver-gilt medal, being awarded to Dr. Hammond T. Hinton, Heytesbury, Wilts, for J. B. Lowe, a handsome variety with scarlet standards and pink-coloured wings.

E. W. King Challenge Cup.—For twelve bunches of Sweet Peas, distinct varieties in commerce, the first prize, a challenge cup and gold medal, was awarded to Mr. Robert Stanford, Barton Mills, Mildenhall, Suffolk, who staged R. F. Felton, Mrs. C. W. Breamore, Hercules, Juliet, New Marquis, King Manoel, Orange Perfection, Maud Holmes, Elsie Herbert, Mark's Tey and Lavender George Herbert; a most beautiful and refined lot of flowers. Second, Mr. E. Broad, Trezenger, Fowey, who had Mrs. Cuthbertson, Elsie Herbert, Lady Miller, Royal Purple, Illuminator, Rosina, King White, King Manoel, Dobbie's Cream, Melba and Hercules. These were much too grossly grown, the tall, gaunt stems without grace or beauty. Third, Major Geoffrey Lubbock, Greenhill, Warminster, Wilts, who showed smaller flowers, yet full of refinement and charm. Nine collections were staged in this important class.

Burpee Cup.—For a display of waved Sweet Peas, space permitted 8 feet by 3 feet, only one competitor, Miss Baird, St. James, West Malvern, entered, her exhibit being awarded first prize. Lavender George Herbert, Mrs. Cuthbertson, Lady Miller, Scarlet Emperor, Mark's Tey, Clara Curtis (cream), Rosabelle, King White and Elsie Herbert were good kinds.

London Class.—Six bunches, distinct: First, Mr. W. Raven, 30, Berkshire Gardens, Wood Green, who had Dobbie's Cream, Princess Victoria, Sunproof Crimson, Thomas Stevenson, Hercules and Royal Purple; second, Mr. Robert J. Baker, Muswell Hill, who staged Mrs. Cuthbertson, Nora Unwin, Rosabelle, Loyalty (white, flaked royal blue) and King Manoel; third, Mr. G. M. Morewood, Brentford. Six groups were staged.

Scottish Class.—Six bunches, distinct: First, Mr. James Kew, Westmount, Stewarton, Ayrshire, whose excellent lot contained Rowena, Dobbie's Cream, R. F. Felton, J. Loader (crimson), Edna May Improved and May Unwin. These were of very fine quality. No second prize was awarded, the third prize going to the Rev. J. C. Gillies Colvin, Manse of Hoddam, Ecclefechan.

Irish Class.—For nine bunches of Sweet Peas, distinct, Mr. Edward Cowdy, Greenhall, Loughgall, County Armagh, was the only competitor, being awarded first prize. Audrey Crier, Mrs. C. W. Breamore, Rosina, King White, Lavender George Herbert, Hercules, Marvel, Elsie Herbert and May Campbell comprised his lot.

Welsh Class.—For nine bunches, distinct, there were two entrants, the premier award going to Mr. T. Jones, Ruabon, for excellent vases of Agricola, Duchess of Portland, Mark's Tey, Lavender George Herbert, Dobbie's Orange, Mrs. C. W. Breamore, Prince George, May Campbell and Edrom Beauty; a particularly good and refined lot. Second, Mr. L. Webb, Lower Terrace, Welshpool, who had New Marquis, Agricola, R. F. Felton, Princess Mary and Duchess of Portland, among others.

Northern Counties Class.—For nine bunches of Sweet Peas again only two collections were staged, the premier award going to Dr. Roy Appleton, Beverley, East Yorks (gardener, Mr. H. Walmsley), who had a superb lot of flowers. May Unwin, Mark's Tey, Elsie Herbert, Mrs. Cuthbertson, Pathfinder (salmon scarlet), R. F. Felton, R. Sydenham, Royal Purple and Hercules comprised his set. Second, Mr. W. Bond, White Cottage, Formby, near Liverpool, who had Pathfinder, Royal Purple, E. Cowdy and Rosabelle as his best.

Western Counties Class.—Nine bunches, distinct: First, Mr. W. Phillips, Astley House, near Shrewsbury (gardener, Mr. R. Goliath), whose May Campbell, Mrs. Damerum (cream), Duchess of Portland, Mark's Tey, Edna May Improved and Elfrida Pearson were excellent; second, Sir Randolph Baker, Bart., who staged Queen Mary, Constance Hinton (white), Marvel (salmon and cream), Hilda and E. Cowdy, among others; third, Mr. E. Broad Trezenger, Fowey.

THE GARDEN.

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JULY 31, 1915.

NOTES OF THE WEEK.

Roses Minnehaha and Hiawatha.—We were agreeably surprised, when visiting a friend's garden a few days ago, to find these two well-known Rambler Roses growing together. The growths of one were intermingling with those of the other, and the flowers of both made quite a charming picture. The combination of these two colours was rather a daring one, Minnehaha having pink blooms similar to those of Dorothy Perkins, while the single blooms of Hiawatha are bright crimson, with a small white centre to each.

A Good Bush Honeysuckle.—The Lonicera or Honeysuckle family consists of a varied class of plants, many of which are very decorative. One of the best is Lonicera grata, a free-flowering shrub bearing at the present time masses of fragrant reddish flowers, which are borne in the axils of the upper leaves or leaf-like bracts. It somewhat resembles the common Honeysuckle of our woods, except that, instead of being of a rambling nature, it forms compact bushes, and is therefore valuable where space is limited. Although introduced from North America in 1720, it is a plant not very well known.

An Interesting New Zealand Shrub. Notospartium Carmichaeliæ is a dainty leguminous shrub, a native of New Zealand. On the borderland of hardiness, the plants pass unharmed through an ordinary winter, yet as they invariably succumb in the open during hard winters, it is desirable to have them in sheltered positions, where also, if necessary, a little additional protection may be afforded. The green, twiggy branches suggest those of Broom or Carex. The small purplish pink flowers are closely arranged in racemes an inch or more in length. This note is suggested by several plants, 2 feet to 2½ feet in height, flowering at Kew in the Leguminosæ collection near the Rose Dell.

A Beautiful St. John's Wort.—One of the most attractive shrubs of recent introduction is Hypericum patulum Henryi. It is larger and more robust in flower, leaf and stem than the type, and is better in every way, bearing its large golden flowers in great profusion for a long period. A native of China, whence it was introduced in 1898 by Professor Henry, after whom it was named, it somewhat resembles the beautiful H. hookeriana, but has the two-edged branchlets

of H. patulum. It is an excellent subject for the front of the shrubbery, or for a bed which is filled with spring-flowering bulbs.

Correction in the Royal Horticultural Society's Diary.—The Rev. W. Wilks writes us as follows: "In the Royal Horticultural Society's Diary for the present year a fortnightly show and meeting has been entered for Wednesday, August 18; this should be Tuesday,

garden in the Cotswolds, and have been in their present position for eighteen years. When the photograph was taken a week or two ago the flower-heads were not quite fully developed, but by this time they will be ready for cutting and drying.

Coreopsis grandiflora and Madonna Lilies.—

Few herbaceous plants can surpass Coreopsis grandiflora for decorating the garden or for cutting, and even when many other flowers are suffering from drought, this plant remains quite fresh. The beautiful, large golden yellow blossoms are produced very abundantly on long, slender stalks, making them extremely valuable for cutting. We recently saw a large vase filled with Madonna Lilies and this Coreopsis, and the effect was very beautiful, while it is equally as effective in small vases with Gypsophila. C. grandiflora is a true perennial, but much better flowers are obtained when it is treated as a biennial, sowing the seed in the spring.

The Californian Mock Orange.—

One of the latest species to flower, Philadelphus californicus is among the most beautiful of the vigorous-growing Mock Oranges cultivated in our gardens. Ultimately some ten feet or twelve feet high, and even more in diameter, lawn bushes may become a conspicuous feature of the pleasure grounds during July, while for the back of the shrubbery border and on the edge of the woodland this species is deserving of attention. The pure white flowers are fragrant, fully an inch across, and borne in panicles up to a dozen or more in each.

Clematis Hendersonii.—This is probably one of the first hybrid Clematises raised in our gardens, 1830 being given as the date of raising by a Mr. Henderson, who lived at St. John's Wood. The reputed parents are C. viticella and C. integrifolia. Free in growth and profuse flowering, for the

flower garden and pleasure grounds it is one of the most beautiful Clematises. The evidence of C. integrifolia is seen from the fact that the plants die down to the ground in winter, pushing up young growths freely in spring, which reach a height of 6 feet or 7 feet, requiring the support of rough poles or Pea-sticks. The dark bluish purple flowers are some two and a half inches across, produced in quantity from early July until September.



EIGHTEEN YEAR OLD LAVENDER BUSHES IN A COTSWOLD GARDEN.

August 17. Would Fellows and exhibitors please make the correction."

Sweet Lavender in the Garden.—Although Lavender is highly appreciated by everyone for the sake of its perfume, it is sometimes rather difficult to grow successfully. In some gardens, however, and especially those where the soil is of a rather sandy character, and therefore well drained, the plants live to a considerable age. Those shown in the illustration are growing in a

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Bottle-Brush Tree Flowering in Surrey.

Perhaps it may be interesting to some of your readers to know that the Australian Bottle-brush Tree, *Metrosideros* (*Callistemon speciosus*), which is not very common out of Cornwall, is flowering well against a south wall on the gravelly sand of West Surrey. It is about four feet high, and has nearly thirty spikes of rich red flowers. It has been some years in the garden, but has never flowered so freely as this season. *Mandevilla suaveolens* and *Plumbago capensis* are also flowering well, and *Exogonium* (*Ipomœa*) *Purga* will soon be a sheet of flowers.—WILLIAM TIDY, *Clare Lodge, Rowledge, Farnham.*

Gardening in South Australia.—I have pleasure in forwarding you two photographs which may be of interest to your readers. One is of *Furcraea longæva*, which, after twenty-two years, has this summer thrown up a flower-spike 20 feet

this case *Papaver umbrosum* (or *commutatum*) was employed, and with a very fine result indeed. Until I was quite near the bed I did not realise they were Poppies, but thought they were scarlet Tulips. Of course, the bright colour was observable a considerable distance from the bed, thus intensifying one's curiosity. I do not remember reading a comment on this arrangement anywhere.—C. TURNER. [Our correspondent does not read his *GARDEN* closely. The Poppies were referred to on page 287 of our issue for June 12.—ED.]

Plagianthus Lyallii Flowering at Kew.

This beautiful New Zealand shrub is now in flower in the *Berberis Dell* at Kew, and the two large bushes of it are well worthy a visit, as it is not every year that it can be seen to perfection. The white Malva-like flowers—*Plagianthus* is a genus of *Malvaceæ*—are about one and a-half inches across, borne on stems about one and a-half inches long, and are produced in threes on the previous year's wood, so that a fine autumn with plenty of sunshine to ripen the wood is essential to the production of flowers the following season.

one of a combination of Violets and Primroses, I think it well worth knowing by residents on our South Coast, so that they may try it, and so increase the many sweet-scented outdoor subjects which for so many years have been starved in pots. The colour, of course, is yellow, and the habit of the plant is similar to our *Jessamine*. The fact of it being a native of South America shows that it would thrive only in our Southern Counties and in sheltered positions.—GEORGE BURROWS.

Antirrhinum Asarina.—This interesting trailing Snapdragon has large, cream-coloured flowers in pairs. It thrives in light soils, and generally seeds itself abundantly. It is useful for covering rocks and bare ground. Seedlings grow rapidly, and soon make a pretty carpet. The old plants, if they survive the winter (which they rarely do in heavy soils), are not nearly so attractive as young ones. Planted in a hanging basket in a cool conservatory, the stems hang down and are very pretty. Twenty-five years ago *A. Asarina* was hardly known in this country. In the year 1892 I brought some plants from the Eastern Pyrenees, and in the following year gave plants and seeds to many botanists and gardeners, including the late Mr. Wolley-Dod. None of them had ever seen or heard of the plant. It is now cultivated pretty generally. The Director of the Royal Botanic Gardens, Kew, has favoured me with the following particulars of its history: "The statement that *Antirrhinum Asarina* was introduced in 1699 appears to have been based on information given in Aiton's '*Hortus Kewensis*,' 1789, where 'cult. 1699 by Mr. Jacob Bobart' occurs. Bobart, who was Superintendent of the Oxford Botanic Garden, edited the third part of Morison's '*Historia Plantarum Oxoniensis*,' published in 1699, in which a description of the plant is given, with the statement that seeds were sent by Sherard. Mrs. Loudon, in 1844, said that it appeared to have been a popular plant for some time about the middle of the eighteenth century, but was afterwards lost to cultivation. However, it was cultivated again at the end of the eighteenth century, and was figured in the *Botanical Magazine* early in the nineteenth century (1806), but it was considered rare then and apparently remained so."—G. R. JEBB.



FOLIAGE PLANTS EFFECTIVELY GROUPED IN AN AUSTRALIAN GARDEN.

high, the stem 10 feet high, the plant dying in the effort. The other photograph is of a clump of Grasses, Japanese and Chinese Bamboos, *Yuccas* and *Dracæna*, the combination of which is very effective.—FRANCIS H. SWAIN, *Aldgate, South Australia*. [The photograph of *Furcraea* showed a magnificent plant, but, unfortunately, was not suitable for reproduction.—ED.]

Annals Between Shrubs.—Early in the season there appeared in *THE GARDEN* an article and illustration of annals (*Godetias*) among shrubs. Just recently I came across an excellent example of *Marigolds* so placed in the public grounds of Primrose Hill, N.W. They looked so well and the plan is so practical that other public shrubberies might be so treated, were the idea more generally known. In addition, too, there are many rough borders and shrubberies in private places which would be much improved by scattering among them some such dwarf annual. I might add that a still better effect was to be seen towards the end of May in a very large bed of shrubs at Kew situated near the Tea House. In

The leaves are 2 inches to 3 inches long, broadly cordate in shape, dull green above and paler beneath. The plant is one of the few New Zealand shrubs that can be grown outdoors in the London district, and even there requires a sheltered position and full exposure to sunshine to ensure the best results.—J. C.

Cassia corymbosa at Eastbourne.—The note on the Mount Etna Broom in *THE GARDEN* for July 24, page 359, was interesting, as we have numerous plants growing in the public gardens in Eastbourne. Following the many spring-flowering shrubs, they flower at a most welcome time, and contrast well with the many varieties of *Veronicas* which are at home in this seaside resort. I was attracted the other day, when in the neighbourhood of Carlisle Road, by the scent of *Cassia corymbosa*, which is growing in the gardens of Mrs. Morrison. The plants, which have attained large dimensions, are quite at home here, although I do not know of any other instance where they are grown successfully outdoors. As the scent of this shrub is so sweet, and reminds

The Toad in the Garden.—Certain people have a great aversion to the presence of toads in their gardens. They think that toads are "horrid things," that they do great harm in the garden, and, in consequence, make every effort to banish them. Now, this state of things results from ignorance and lack of observation; hence my reason for sending this plea on behalf of the toad. True, it is somewhat of a surprise, not to say a shock, to suddenly discover one of these benevolent creatures close to your hand when you are weeding your annuals, if you were not expecting to discover one; but the shock is quickly got over. Of course, the assertion that toads are "horrid things" is true when made by some people, for these say they feel unwell, or, to put it in their own words, are "tarned sick" at the sight of a toad. However, such excuse ought not to be the reason for banishing toads from the garden. The assertion that they do great harm in the garden is not true. At any rate, they are perfectly harmless; and experience shows me that they are not merely harmless, but capital friends of the gardener. Nearly every summer we have one or two here (sometimes several), and only a few days ago I

found one enjoying a cool and damp retreat under some foliage up in the top garden. Toads are benevolent because they eat many of the gardener's foes, which are with us quite plentiful enough even in the summer. Some people say that they work destruction because they "eat up the young growths of annuals and other plants." I cannot, of course, be certain that they do not, but I can say very definitely that I have never found nor traced them doing any such thing. I have found them to be the gardener's friends, so readers should think long before they banish them from their gardens.—E. T. ELLIS, *Weetwood, Ecclesall, Sheffield.*

Single Rose Miss Rosalie Wrinch.—This Rose, sent out in 1914 by Messrs. Brown of Peterborough, bids fair to become one of the most popular early flowering varieties we have. My plant was, on June 5, in full flower and making a conspicuous object in the garden, rambling over an old tree stem. The blooms are 5 inches in diameter, ranging from six to nine petals, with generally a crinkled edge and deep yellow stamens. The colour is the pleasing feature; the buds are a deep rosy red, gradually fading to a rich pink when fully developed. The blooms are freely produced.—E. MOLYNEUX.

Pæonia officinalis lobata.—I was pleased to see a note in your issue of the 17th inst., page 351, anent this plant. I have visited many well-known gardens, but I have never yet seen a specimen of it. Moreover, it is seldom mentioned in modern horticultural works; in fact, the only mention of it I have come across is in the "Cottage Gardeners' Dictionary." Kew is not the only place where one would expect to find this plant and where it is missing, as there is not one in the Royal Horticultural Society's Gardens at Wisley. It is a kindly subject to grow, and different from *Pæonia sinensis*, which generally takes some years to thoroughly establish. *P. lobata* flowers the first season after planting. At least, that is my experience. Your correspondent very accurately describes the colour of the flowers and the attractiveness of this plant. So far as I know, there is no other colour in the garden quite like it. Noble as the varieties of *P. sinensis* are, the subject of this note is far more refined and elegant, while it does not occupy the great space required for the stronger-growing plant.—ALPINIST, *Weybridge.*

Three Useful Recipes.—The following old recipes may perhaps be of some use and interest to other readers: *Syrup of Gilliflowers* (Yorkshire, 1769).—Take 5 pints of clift Clove Gilliflowers, and put to them 2 pints of boiling water; then put them in an earthen pot to infuse a night and a day. Take a strainer and strain them out; to a quart of your liquor put 1½ lb. of loaf sugar, boil it over a slow fire, and skim it while any scum rises. When it is cold, bottle it for use. *Elder Rob* (eighteenth century, about 1750).—Gather your Elderberries full ripe, pick them clean from the stalks, put them in large stew-jars and tie paper over them. Let them stand two hours in a moderate oven. Then put them in a thin, coarse cloth and squeeze out all the juice you can get. Put 8 quarts into a preserving pan, set it over a slow fire, let it boil till it be reduced to 1 quart. When it is near done, keep stirring it to prevent it burning. Then put it into pots, let it stand two or three days in the sun; then dip a paper, the size of your pot, in sweet oil, lay it on, tie it down with a bladder, and keep it in a very dry place.

Balm Wine (Yorkshire, 1769).—Put a peck of Balm leaves in a tub or large jar, heat 4 gallons of water scalding hot, ready to boil, then pour it upon the leaves. Let it stand all night, then strain it off through a hair sieve. To every gallon of liquid put 2 lb. of fine sugar and stir up very well. Take the whites of four or five eggs, beat them very well, put them into a pan with the liquor. Whisk it well before it be overhot. When the scum begins to rise, take it off, and keep it skimmed all the time it is boiling. Let it boil three-quarters of an hour; then put it into the tub. When it is cold, put a little new yeast upon it, and beat it in every two hours, that it may head the better. So work it for two days; then put it into a sweet keg, bung it up close, and when it is clear, bottle.—BORIS.

Dianthus Spencer Bickham.—I was pleased to observe the illustration of *Dianthus Spencer Bickham*, together with the paragraph regarding it, on page 324 of *THE GARDEN*. It is a delightful little Pink, of which I happen to possess the true form mentioned by you. The flowers, as you remark, "are of a brilliant rose red," and are freely borne a little above a close mat of small foliage. I grow it best here in a moraine of crushed road chips and lime, and it is increasing well and evidently thriving. It is universally admired by those who see it, and is one of the choicest of such hybrid Pinks.—S. A.

Gentiana acaulis.—I can quite corroborate what Mr. Jenkins says on page 336, issue July 10, regarding *Gentiana acaulis* on a sandy soil. It is a little difficult to forecast whether it will succeed in any particular place or not, but I know that I have been successful with it in sandy soil, and that I have frequently seen it flourishing and flowering freely in such a medium. I find that my best results in my present garden are obtained in a border of poor soil with gravel in it, and in full sun. The position is fully exposed, and the plants are hard and firm. It is always unsafe to offer any theory regarding *G. acaulis*, and to say that this will be found to work out well in any particular garden. Long experience and observation have convinced me of this. When I say that I have seen *G. acaulis* flowering and spreading well on a fairly good loam, with 2 inches of animal (cow or horse) manure almost immediately underneath, it will be seen that this remark is not without foundation. Another example of its success was in a garden where it grew in good loam immediately in front of a border occupied in the summer by Dahlias and other gross-feeding subjects, for whose benefit the border was heavily manured annually. The border sloped well to the front, and the *Gentianella* must have received a considerable amount of nourishment in consequence. It formed a long line about two feet across, and was a picture of beauty in its flowering season. In another garden where *G. acaulis* is a success it is planted in a broad line at the front of a border of herbaceous plants, again in good loam. It was shy of flowering for some time, and was subjected to the apparently harsh treatment of running the garden roller over it, with the happiest results in the shape of plenty of flowers. This operation is performed annually, and the brilliance of the blue flowers of the *Gentianella*, borne in abundance, is considered a justification for this severe treatment. "Sweet are the uses of adversity!" Yet, on the whole, my conclusion is that a light, dry soil is the most conducive to blooming and gives the best plants.—S. ARNOTT, *Dumfries.*

RECIPES FOR HOME-MADE SOAP AND PERFUMES.

NOTICE in your issue for June 19, page 300, "M. H." asks for recipes for home-made soap, ointments and perfumes. I hope the following will be of some use:

A Fine Scented Wash-Ball (Perfumed Soap).—Take of the best white soap ½ lb., shave it into thin slices with a knife; then take 2½ oz. of Florentine Orris, ½ oz. Calamus aromaticus, ½ oz. Elderflowers, ½ oz. Cloves and dried Rose leaves, 1 dr. Coriander seeds, Lavender and Bay leaves, and 3 dr. storax. Reduce the whole in a mortar to a fine powder, sift finely through muslin, knead into the paste of soap, softening the paste with oil of Almonds. Make into round balls and set to dry. The above recipe ends: "Too much cannot be said in favour of this wash-ball with regard to its cleansing and cosmetic property."

Cold Cream.—Take white wax and spermaceti, 1 dr.; oil of Sweet Almonds, 2 oz.; spring water, 1½ oz. Melt the wax, spermaceti and oil of Almonds in a glazed pipkin, put in a pan of hot water. When melted, pour into a mortar and stir it about with the pestle till it gets cold and quite smooth; then add the water gradually and keep stirring until the whole is incorporated. This pomatum resembles cream. Use rose-water instead of spring water to give it a Rose scent.

Cucumber Cream.—Three small Cucumbers, 1 oz. of white wax, 6 oz. of Sweet Almond oil, 1 oz. of Cocoa butter, and two teaspoonfuls of tincture of benzoin. Cut the Cucumbers (rind as well) into inch blocks and put in a saucepan with the Almond oil. Let it simmer four or five hours; strain and press as much of the juice of Cucumber as you can get; then add the wax and Cocoa butter. Put in a pan and heat until thoroughly melted and mixed. Take off the fire, heat it gently, adding the benzoin till it is well mixed. Add a few drops of Spinach juice to give it a delicate green colour, pour into jars and tie down.

Lavender Cream.—Six ounces of Almond oil, 1 oz. of white wax, ½ lb. of Lavender flowers (Rose leaves or Jasmine can be used instead). Put the oil, wax and Lavender into a pipkin, put a lid on the pipkin, and stand it in a cool oven for three or four hours. Remove and let it cool. Next day strain, remove the flowers, add fresh ones, and again warm in the oven. Second day strain and pour into jars.

Hungary Water.—Take 4 oz. of Rosemary flowers, 1 pint of spirits of wine; infuse twelve days, shaking the bottle well. Draw off and cork close.

Rosemary Hair Wash.—Steep Rosemary leaves in a bottle of bay rum ten days. Strain and add fresh Rosemary. Keep for another ten days, strain and use.

Absinthe.—Infuse for a fortnight 3 oz. of the flowers and tops of Wormwood, three Cloves, ½ oz. stick of Cinnamon (which break) in a quart of rectified spirits. Strain, add a pint or less of syrup (using cane sugar and distilled water). To give it the proper green colour, add drop by drop Spinach juice.

A Cordial.—Put a handful of Rosemary and Balm, ½ oz. of Cloves, ½ oz. of Nutmeg and ½ oz. of Cinnamon in a quart of brandy. Let it infuse three weeks. Add a syrup sufficient to sweeten to taste, strain and bottle.

Peppermint Cordial.—Put a few drops of oil of Peppermint on a lump of sugar, put it into a

bottle of gin, add syrup. The amount of Peppermint depends on the individual taste.

"Rummel" Cordial.—Infuse 10z. of fresh gathered Caraway seeds in a quart of unsweetened gin. Let it stand two months, strain and sweeten.

Herb Vinegar (for Salads).—Lemon Thyme, Savory, Marjoram, Sweet Basil, 3oz. of each; Lemon peel and Eschalot, grated, 1dr. of each; Celery seed, 1dr. Infuse for ten days in the sun in Orleans vinegar. Strain and use. K. T.

BOTTLING FRUITS AND VEGETABLES.

THE value of bottled fruits and vegetables to every household during the winter, even in normal times, is generally understood, but how much more important it is in these strenuous times that every effort should be made to preserve as far as

of sugar to a quart of water. Take care that the fruits chosen are perfectly sound and not overripe. Pack the fruits closely in the bottles to within an inch of the top, cover with the syrup, adjust the rubber ring and glass disc, and screw down the metal collar tightly; then stand the bottles in the steriliser, place over a steady heat, and allow the water to come to the boil gradually. Remove from the fire and screw the bottles down firmly.

Plums, Damsons and Green Gages may be bottled by covering with water only; but these fruits are improved by the addition of a small quantity of sugar. From 4oz. to 5oz. to a quart of water will be sufficient.

Strawberries and Raspberries require very little or no water, the best method being to sprinkle sugar between the fruits and proceed as for those above mentioned.

Of Tomatoes, choose some of a good medium size, not overripe, taking care they are quite

America. We are told that its beauty, both at the flowering season and in autumn when the foliage turns bright orange and scarlet, is so impressive that the tree is spared 'even by the settlers.' The tree illustrated is by no means of exceptional size. Sargent gives the height as 40 feet to 60 feet, occasionally 100 feet. Under cultivation in this country it is much more promising than its fellow American species—*C. florida*. At Kew some plants 6 feet to 10 feet high have flowered well for two or three years past. The inflorescence is formed in early autumn and remains exposed throughout the winter, the bracts developing and the flowers expanding the following May. The bracts usually number six, but vary from four to eight; they are 3 inches long and up to 2½ inches wide, often partially overlapping. The whole involucre (or 'flower' as it is popularly termed) is thus 6 inches wide and creamy white, often tinged with pink later. The true flowers are small, greenish, and gathered in a dense head three-quarters of an inch wide. The species is native of the coast region, from British Columbia and Vancouver Island to South Carolina. We are indebted to Mr. F. W. Godsall of Cowley, Alberta, Canada, for the photograph of a tree of *Cornus Nuttallii* growing in British Columbia which is here reproduced."

SNAPDRAGONS FOR PRESENT SOWING.

THOSE who wish to raise Snapdragons or Antirrhinums for flowering early next summer should sow the seed at once. These charming flowers are so easily grown, and continue to blossom over such a long period, that one has no hesitation in putting forward a plea for their extended cultivation.

Flowering as they do in any reasonably good garden soil that is well drained, they impose no difficulties on the grower, excessive wet during the winter months being the greatest trouble to contend with. Seed of separate coloured varieties, such as deep crimson, yellow, pure white, pink and flame red, is obtainable, and either dwarf, intermediate or tall forms can be had. For most purposes the intermediate section, with flower-stems from 18 inches to 2 feet high, is the most useful, the dwarf varieties being too stunted to be pleasing, and the tall ones rather too lusty for positions that are at all exposed. The seed may be sown now in the open ground, but the surface must be of fine tilth, as the seed is small and needs but a quarter-inch covering of soil. We prefer to sow thinly in rows a foot apart, and then to transplant the seedlings, when about two inches high, into beds of deeply dug but rather firm soil. They should go about nine inches asunder in rows at least a foot apart, and remain there until the end of March, when they can be transferred to their flowering positions. In very wet and cold localities it would be advisable to transplant the seedlings to a bed made up in a cold frame, so that excessive rain could be guarded against.

Any pretence at "coddling" must not, however, be allowed, as the plants are perfectly hardy so long as they are kept reasonably dry. Where Snapdragons are grown on rockwork or old walls, it would be best to scatter the seeds at once where the plants are to grow and flower, thinning them as may be necessary when the seedlings are a few inches high.



A SPRAY OF CORNUS NUTTALLII SHOWING THE CHARACTER OF THE FLOWERS.

possible those kinds and varieties which answer so well to this treatment.

Fortunately, there is every prospect of a heavy crop of Plums and Damsons, two of the most valuable fruits for this purpose, as nothing retains its flavour and reminds one of freshly gathered fruit more than these. Any kind of Damson is suitable, but some of the best varieties of Plums are Rivers' Early Prolific, The Czar and Victoria, and wherever these are grown, either in large or small quantities, one can generally spare sufficient, if only for a few bottles.

As I have for some years taken a great interest in the preserving of all kinds of fruit, I will, for the benefit of those who have had little or no experience, relate in as brief and concise a form as possible the methods I have adopted with success.

Gooseberries, Cherries and all kinds of Currants may be bottled in syrup, allowing 6oz. to 8oz.

clean and not bruised. Pack closely into the bottles, cover with clean cold water, adding a little salt, and proceed as for sterilising fruit. Beans may be bottled in the same way; also small young Carrots are useful and good. The latter must be parboiled before bottling. (Mrs.) E. BECKETT.

A BEAUTIFUL AMERICAN TREE.

(*CORNUS NUTTALLII*.)

Writing in the *Kew Bulletin* No. 4 on *Cornus Nuttallii* and its allies, Mr. W. J. Bean gives the following particulars of the species. We are indebted to H.M. Stationery Office for permission to use the illustration of the magnificent tree which accompanies Mr. Bean's notes in the bulletin.

"The illustration we give of this, the noblest of Cornels, enables us to appreciate the enthusiastic terms in which this tree is invariably commented on by writers and by travellers in Western North

SEASONABLE NOTES ON AURICULAS.

IF the plants were duly potted as suggested in May and carefully watered, they will now be rooting freely. Top growth will be scarcely perceptible, but, as stated, the roots will be active, and thus preparing for the second period of growth. At this stage every encouragement must be given by admitting plenty of air, giving just sufficient water to keep the roots on the move, and by holding in check insect pests, of which green fly is the most persistent.

Where the grower cannot provide the shade of a north wall or hedge, it will be necessary to use artificial shading for a few hours during the middle of the day when the sun is bright and hot.

Seed-Sowing.—In these days seed-sowing has become a favourite hobby with many amateurs, and such work should be commended and encouraged, as by this means new kinds are secured and real progress made.

When to Sow Seed.—In a previous article I suggested the intercrossing of different varieties, and where such work was carried out the seed will reach maturity during the present month. Auricula seed may be sown at any time, but I prefer to sow it directly it is gathered, because it germinates more evenly. Even then it is somewhat irregular, and the beginner should not be discouraged if only a few seedlings appear during the first three or four weeks. The seed will continue to germinate for some months; in fact, I have known it to lay dormant for over a year.

Seed-Pans.—The ordinary flower-pot, box or seed-pan may be chosen in which to sow the seed, and one-half of their depth should be filled with drainage, over which is placed a thin layer of moss or rough material to ensure a free outlet for water. A mixture of loam, leaf-mould and sand should be prepared, and then made fairly firm in the pans. The surface should be made even, when it will be ready for sowing the seed. This is sprinkled rather thinly and then covered with a little fine soil.

After-Treatment.—An ideal position for the seed pots or pans is in a hand-light or small frame, which should be placed at the base of a north wall, or wherever it is shady. For a few weeks the pans may be covered with a thin layer of damp moss to conserve moisture, as the soil must never be allowed to become dry. To maintain a close, moist atmosphere, very little air ought to be admitted, and then only during damp weather. When the seedlings have made two or three tiny leaves, they may be pricked off into pans of light soil an inch or so apart. With ordinary care and attention they will grow freely, providing they are kept cool and the soil is not allowed to become sour through overwatering. T. W. B.

A BEAUTIFUL HARDY ANNUAL.

ONE of the most interesting and charming annuals flowering in the outdoor garden just now is *Collomia coccinea*, a native of Chile and a plant that is evidently but little known. Very few seedsmen offer seeds in their catalogues, though doubtless they could supply them if ordered. The plants flowering now were self-sown seedlings last autumn, and have stood the winter through without any protection; hence one may fairly claim that this *Collomia* is perfectly hardy, a

rather interesting fact when we remember its habitat. It forms a neat, rather dense, branching bush from 12 inches to 15 inches high, and each growth is terminated by a cluster of small vermilion flowers, the reverse of which is bright golden yellow. In general appearance the flower-heads resemble those of the smaller *Bouvardias*. This annual is not fastidious as to soil or position,

and would be quite a good temporary plant for the rock garden where a reasonable depth of soil is available. As already indicated, it seeds and sows itself freely, and although by no means weedy, is not likely to be lost when once it has been allowed to seed. Seeds could be sown either in August or September, or in April. The plant continues to flower for some weeks.



A MAGNIFICENT TREE OF *CORNUS NUTTALLII* GROWING IN BRITISH COLUMBIA.
(From the Kew Bulletin. See page 374.)

SOME SIMPLE PLANTS FOR EDGINGS.

WITH so many beautiful new plants before us that have been collected from temperate regions, and especially the western and northern parts of China, I am afraid that we do not always appreciate, or give so much attention to, the old favourites as their merits deserve. No one with

aggressive, old plant, London Pride or Saxifraga umbrosa, making a broad yet neat and beautiful margin to the pathway; while, in the other, garden Pinks are used for the purpose. The last-named picture has its fault, inasmuch as the pathway, being narrow, has become too much overhung by the plants. The primary object of a pathway is for walking upon, and anything that hinders this, or renders progress uncomfortable, is not good gardening. Properly placed, these garden Pinks make one of the best permanent edgings that I know, though one would prefer

the smaller-flowered varieties to the large ones seen in the illustration. At all seasons the neat, glaucous-tinted foliage of Pinks is pleasing, and during the flowering period, which, unfortunately, is rather a short one, the deliciously fragrant blossoms are appreciated by everyone. The present is an opportune time to write of these Pinks, because there is no better season for propagation. The young shoots that are to be found in abundance on the old plants just now, if pulled off with or without a "heel" and dibbled in rather thickly in a bed of sandy soil and leaf-mould, and then covered with a cold frame, will root almost as freely as weeds, and make neat little tufts for planting as edgings during October or early November. These Pinks will thrive in very poor soil, hence they are particularly useful for those whose gardens are mainly composed of sand.

In similarly poor soil there are few better plants than the Thrift or Sea Pink, *Armeria vulgaris*. All the year through this has neat, bright green, grass-like foliage, and during June, July and

August it never fails to produce its quaint, globular heads of rosy pink flowers in abundance. A variety of it named *lancheana* has blossoms of a deeper hue and is equally useful for edgings. To increase the plants, one has only to lift and divide them early in the autumn. London Pride, already referred to, is one of the best natured plants that we have, and is only despised by those who regard it as "common." Although its specific name indicates that it is shade-loving, it will grow practically anywhere—in deep shade or full sun—and gives no trouble at all except to occasionally, during autumn, lift the old plants, when they are extending too far, or becoming thin in the centres, and replant some of the young, outer rosettes.

Of a more dainty character, but equally as easily grown, are the Aubrietias. Where a pathway has a rough edging of stone, there is nothing

better for scrambling over it, and during spring and frequently well into the summer, the plant will provide sheets of lavender, blue or rose coloured flowers, according to the variety that is selected. The plants are easily increased by division during wet weather as soon after flowering as possible selecting the young, rooted growths for replanting. Equally useful is *Arabis albida* or *alpina*, which gives its white flowers in such profusion during the spring. In recent years the double-flowered variety has been extensively used for edgings, but I prefer the older single-blossomed plant, which is neater and more pleasing, at least as an edging. It is readily increased in the same way as the Aubrietia, and is a plant that will give but very little trouble.

Harking back to gardens composed mainly of sandy soil, one would like to see the Sun Roses or *Helianthemums* more extensively used for edgings. Of a semi-shrubby nature, these plants revel in sunshine, and although, if left to their own resources, they become rather ragged-looking in a few years, this can, to a large extent, be obviated by cutting back some of the growths immediately after flowering. There are very beautiful colours among them, and some of the plants have foliage of a pretty glaucous tint. Their propagation, which is not exactly easy, is best effected by means of cuttings made from young growths during the next few weeks. These should be planted in pots of very sandy soil, each receptacle plunged in Cocoanut fibre in a cold frame, and then covered with a bell-glass.

Where the soil is naturally peaty, or contains a large percentage of humus, and is free from lime, no better edging could be found than one of the dwarf *Ericas* or hardy *Heaths*. *Erica carnea* is ideal for the purpose, and it flowers profusely from January to April. A little taller, but quite suitable for a broad edging, is *E. mediterranea hybrida*, or *E. darleyensis* as it is now to be known. It flowers in December and continues until May, its rose pink blossoms being highly appreciated for cutting. It is not at all an old plant, but is included here as a beautiful representative of an old family. Those who prefer a summer-flowering Heath as a margin to the pathway should select the Scotch or Grey Heath, *E. cinerea*. Its bright purple flowers are very charming, and it always keeps dwarf. The garden varieties of this Heath, beautiful though they are, ought not to be selected for the purpose now under consideration, as, generally speaking, they do not possess the vigour of the type. For a flagged pathway there is no better margin than Lavender—one of the dwarf varieties obtainable from any really good nurseryman. The maximum height of these is about fifteen inches, and at all seasons they are pleasing. If Catmint, *Nepeta Mussinii*, can be sandwiched between, the effect will be particularly good, the soft blue flowers and grey foliage harmonising splendidly with the Lavender.

There are, of course, a great many other simple plants that could be used as permanent edgings to pathways, according to the desire of the owner of the garden, and the locality, but enough has been said to draw attention to a phase of gardening that is too often neglected. In planting these edgings it should be remembered that a fairly broad belt gives a much better effect than a very narrow one. Its actual width will, of course, be determined very largely by the width and length of the pathway. A comparatively narrow walk, if of considerable length, would need quite a broad edging—one at least a foot wide—while a wider



PINKS AS EDGINGS TO A PATHWAY. THE WALK IS TOO NARROW FOR THE PLANTS.

a broad outlook on gardening would say that a plant, simply because it is old-fashioned, should be retained in prominent positions in our gardens if a newer one better adapted for the purpose is available in quantity. But there are a good many old, or comparatively old, flowers that for certain positions have yet to be surpassed. Take edgings to pathways for an example. In many gardens one finds these occupied by plants quite unsuited for the purpose, and in others the pathway is devoid of edgings at all. Yet these features, if planned with a little forethought and sound judgment, add considerably to the charm of the garden, and yield not a little pleasure to the owner.

The illustrations that accompany this article, reproduced from photographs taken in the garden of Mrs. Dill at Londonderry, will serve to show what I mean. In the one we have that useful, if somewhat

pathway that is short would be best furnished by one 9 inches in diameter. It must also be remembered that the tendency of all the plants named is to increase in width, and some little allowance must be made for this, though in most cases judicious cutting back will keep them within a few inches of their original sphere. F. W. H., in *Country Life*.

SEASONABLE NOTES ON VEGETABLES.

Broccoli.—The plants are now growing freely. The ground between the plants should be kept quite clean by hoeing, or, where the soil has become soddened by trampling upon it during wet weather or other causes, it should be forked over, thus admitting air to the roots.

French Beans sown in frames during the early part of July should be thinned if too crowded, staked, and mulched with leaf-mould or spent Mushroom-bed manure, which will feed the surface roots. Gather the Beans directly they are ready, thus removing any undue strain on the plants. Do not use the lights on the frames until the end of August, and then only at night, giving abundance of air at the same time.

Runner Beans are now podding freely. Pick the Beans early, and disbud to two on a bunch if specially long pods are required. Mulch freely with long litter and water copiously, occasionally with weak liquid manure if available.

Brussels Sprouts should receive supports if of the Exhibition type, which are likely to grow 4 feet high. One stout stake to each plant, thrust into the ground on the south-western side, will support the plant if loosely tied. When plants are blown about by strong winds at the end of August, they cannot right themselves, and for the purpose of exhibition as a whole plant they would be unsuitable if crooked. Slightly earth them up to protect the lower part of the stems.

Carrots.—Now is a good time to make a sowing in a frame that has been used for French Beans, Turnips or early Potatoes, choosing one of the Short Horn varieties. In prepared soil on a south border a sowing of the same type should be made. The small roots are always appreciated during the winter or early spring.

Endive.—Plants should be put out as fast as they are ready in drills 15 inches wide, allowing a foot between the plants. Make a final sowing on a warm border, or, what is better, in a temporary frame. Assurance of good plants is then certain.

Autumn Onions.—Preparation should be made for sowing this crop the first or second week in August. Well manure and deeply dig a plot that has been occupied by Potatoes, Peas or Broad Beans, for example. If prepared at once, the soil will settle down firmly by the time it is required. The present season's crop is now ready for harvesting. Pull up the bulbs, clean off any soil, and lay them in a sunny spot to dry and mature thoroughly, turning them over occasionally.

Spinach.—Prepare a piece of ground by digging it deeply to ensure good drainage for a batch to stand the winter. Ground previously trenched and cropped with Potatoes or last season's Celery should suffice. As a rule, the end of July or early in August is a good time to sow. Early rather than late is the best, as the plants get a good start before the autumn and stand the winter better than those sown late, which have not time to become strong. One variety is sufficient, and that is Long Standing Prickly, although the ordinary round kind answers very well in the majority of seasons.

Turnips.—Continue the fortnightly sowings of Snowball, All the Year Round, Green Top White and Red Globe to ensure a regular supply of succulent roots. Sow in watered drills if the weather is dry at the time, to ensure quick germination of the seed. Cover the drills with short grass to guard against the attacks of Turnip fly. Directly the plants are above the ground, dust with soot and wood-ashes.

Potatoes.—The early and second-early varieties should be lifted as they become ripe, selected, dried and stored for seed. Pick out tubers about 2oz. in weight, as these are the best for planting. The old-fashioned plan of greening seed Potatoes is quite unnecessary. Thoroughly dry them and store thinly in a shed or cellar.

Cabbage.—Sow seed of such early varieties as Harbinger, Ellam's, Springtide and Flower of Spring in well-dug soil in an open site, well watering the soil first if it is dry. Cover the seed thinly and apply some shade until the plants show through the soil, when full exposure should be given to ensure stocky growth. A cold frame is the best place in which to ensure quick growth and freedom from fly attack, as the seed is more under control. The advantage of the glass covering is valuable until the seedlings appear through the soil, when full exposure should be given to ensure sturdy growth.

Swanmore Park, Hants.

E. MOLYNEUX.



LONDON PRIDE AS AN EDGING TO A GARDEN PATH.

THE ROSE SEASON IN SCOTLAND.

OWING to the long continuance of almost tropical heat, followed, providentially, by an abundance of rain, the Rose season in Southern Scotland has been much finer than usual this year. Among Roses of quite recent origin and introduction, some of the most florally effective have been Lady Clanwilliam, Majestic, Mrs. Wemyss Quin, Edgar M. Burnett, Florence Forrester (an immense, pure white Rose), Josephine (with "Gloire" attributes, but more replete with central petals), Mrs. Archie Gray (of exquisite apricot yellow complexion), Mrs. James Lynas (rivalling in beauty Lady Clanwilliam, and shell-like in its lustrous petals) and Lady

firm has hitherto produced. Majestic is unquestionably one of the finest garden Roses hitherto sent out by Messrs. William Paul and Sons of Waltham Cross, and I am sincerely glad that, like Lady Clanwilliam and Augustus Hartmann, it has had the distinction of being awarded the gold medal of the National Rose Society.

I have George Dickson and H. V. Machin, two glorious crimsons from far-famed Newtownards, flowering in the new garden at Kirk House, Kirkmaiden, where I now reside. The former is somewhat sparing of its flowers, which, however, are large, and grandly impressive alike in colour and formation. As both of these varieties were only planted in the beginning of March, they are not yet entirely established, and will probably be more florally effusive—if that is a possibility—during the early autumn months. Where they can be grown by the hundred, as they

Gray, Mrs. Cooper (already characterised) and the luminous Brilliant are also at present superbly effective, and their value for garden decoration—as I already know from experience—can hardly be over-estimated.

Mr. S. McGredy is one of the most eminently successful of British rosarians; he rivals M. Pernet-Ducher, and his most recent creations amply sustain his great reputation. Pre-eminent among these is Iona Herdmann (a greater acquisition than Mrs. Charles E. Pearson), Florence Forrester (which, being a splendid pure white Rose of abnormal dimensions, is certain to become a valuable variety for exhibition), Colleen (expressively described as "a glorified Killarney") and Edgar M. Burnett (which may be described, not inexpressively, as an advance, especially in bright colour, on the hitherto almost incomparable La France). DAVID R. WILLIAMSON.



CAMPANULA ARVATICA (ACUTANGULA). THIS RECEIVED AN AWARD OF MERIT LAST WEEK.

Plymouth (almost equally endowed, and a splendid representative of the Maman Cochet family).

In addition to these, in the recently made garden here I have William Cooper (intensely bright in colour and richly fragrant), H. V. Machin and George Dickson (rivals in renown), Colleen, Mrs. Ambrose Ricardo, Iona Herdmann, Irish Fire-flame, Mme. Edouard Herriot and the picturesquely coloured Queen Mary (worthy of such an exalted name). I am gratified to learn from previous issues of THE GARDEN that Mr. Herbert Molyneux, whom I cannot but regard as an authority on Rose culture in all its aspects, has such a very high opinion of this Rose. Augustus Hartmann I have not yet acquired, but from what I have heard of its characteristics and achievements, I have no hesitation in regarding it as the grandest variety the distinguished Colchester

are in the great rosariums, they must be of inestimable value for exhibition. One of the greatest acquisitions from Newtownards is Mrs. Wemyss Quin, which here is a very brilliant apricot in hue, extremely floriferous, and with fascinating, Maréchal Niel-like fragrance, which outrivals, particularly in exquisite complexion and artistic form, its gracious predecessor, Miss Alice de Rothschild.

Unquestionable acquisitions are also the latest introductions or creations of that renowned rosarian, Mr. Hugh Dickson of Belmont Nurseries, Belfast. Among these, in my estimation, supremely shines Lady Clanwilliam, which—to myself at least—is somewhat reminiscent of Mme. Melanie Soupert, the favourite Rose of Queen Alexandra, though I cannot but think that the Irish Rose is a notable advance on that splendid variety. Mrs. James Lynas, Mrs. Archie

NEW AND RARE PLANTS.

AWARDS OF MERIT.

Campanula Meteor.—From the garden standpoint we consider this a much inferior plant to C. White Star, to which it is in some measure related. A year ago C. Norman Grove received an award of merit, it having been raised from crossing C. White Star and C. tommasiniana, C. Meteor being one of several seedlings resulting from the selfing of the hybrid above named. It is white-flowered with a suffusion of blue, virtually a modified White Star. From Messrs. Grove and Son, Sutton Coldfield.

Campanula arvatika (acutangula).—In flower effect this is an enlarged C. waldsteiniana of the same, or slightly deeper, violaceous blue, with violet purple base. Dainty as a whole, the erect, solitary flowers are freely produced on 3-inch high peduncles from a spreading carpet of miniature, almost Ivy-like leafage. Quite one of the choicest of the alpine set, it promises well for the rock garden or moraine. Although shown under the name of acutangula, we believe the Kew authorities name it arvatika. (See illustration.) Shown by Mr. M. Prichard, Christchurch, and Mr. G. Reuthe, Keston, Kent.

Pelargonium Kathleen Bunyard.—An Ivy-leaved sort of rich scarlet colour and a great bloomer. Plants 15 inches high were full of bloom. From Mr. M. Billingham, West Croydon.

Bulbophyllum balfourianum.—An interesting Orchid flowering for the first time. The hooded flowers have a groundwork of greenish yellow, copiously spotted with brownish crimson, the lip being of richer crimson. The example had two flowers, these appearing from the pseudobulbs on a level with the soil. The Phalaenopsis-like leaves are large, green, and out of all proportion to the other parts of the plant. A most curious and interesting species. Exhibited by Messrs. Sander and Sons, St. Albans.

Cherry Waterloo.—A very old variety, and still one of the best for any purpose. The colour is dark reddish purple, almost black.

Gooseberry Roseberry.—The fruits are small, green, and of excellent flavour.

Gooseberry Whinham's Industry.—This well-known and popular red sort needs no description. These were exhibited by Messrs. G. Bunyard and Co., Maidstone.

The foregoing plants and fruits were exhibited before the Royal Horticultural Society on July 20, when the awards were made.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Early Peaches and Nectarines.—As soon as all the fruits have been gathered, attention must be given to the ripening of the young growths. All old fruiting wood must be removed unless it is necessary to leave it for extension. Old branches which are becoming bare at the base may be cut out if there are sufficient young growths to take their place. All young growths may be loosened from the trellis to expose them as much as possible to light and air. The roots must not suffer for lack of moisture. Old-established trees will benefit by occasional applications of liquid manure.

Early Pot Trees.—The trees which were forced early in the year may now be repotted. They will then have time to make plenty of fresh roots before they are again started into growth. In many cases the trees may be repotted into the same pots, but young trees may be given a slightly larger shift. In all cases the roots must be carefully shaken out, thus reducing the ball of soil so that there will be plenty of room to ram the new material firmly about the roots. A good compost consists of loam, lime rubble, crushed bones, wood-ashes and soot. Place the trees in a shady position for a few days after potting, and water with care till the roots are again active.

Midseason Trees.—Lose no time in soaking the roots with water as soon as all the fruits have been gathered. Drench the foliage with an insecticide to destroy all insect life. Prune them as advised above, and carefully examine the ties on young trees to see that they are not too tight.

Plants Under Glass.

Humea elegans.—Pot on the young plants as they become sufficiently well rooted. Use a light compost, and see that the pots are efficiently drained. Do not attempt to hasten the growth of the plants, or many may be lost through the winter. Keep them close to the light and shade from bright sun.

Cinerarias.—Keep these growing in a cold frame in a shady position. They are liable to attacks of green fly at any time. To keep them free from this pest, a light fumigating with a nicotine compound should be given them about once a fortnight.

Calceolarias.—These may be grown in a cool house on a gravel or ash bottom. Late-sown plants may be potted up singly into small pots when large enough. Keep them shaded from bright sun, and admit plenty of air to the house at all times.

Abutilon Savitzi.—This makes excellent plants for grouping when well grown. Quite large specimens may be grown by potting on into 7-inch pots. Cuttings may be struck at almost any time when available.

The Flower Garden.

Pentstemons.—The flowering season of Pentstemons may be somewhat extended by affording the plants plenty of water, which may be supplemented occasionally with diluted liquid manure. If the flowers are not already supported with stakes, no time must be lost in doing so.

Begonias.—The beds must be gone over regularly to remove dead flowers and seed-vessels. The varieties Hampton Court and Major Hope are two of the best bedding Begonias I know. The flowers need a little support to keep them clear of the ground.

Spiræas (Astilbes).—The plants which have flowered in the conservatory or cool greenhouse may be made use of by the margin of pools or streams. The pink varieties are most useful for this purpose.

Lavender.—Hedges of Lavender require to be cut back occasionally to keep them within bounds. This may be done when they have flowered. If flowers are required for use indoors, they must be cut before they are too far advanced and placed on a sheet in a dry place. A stage in a vinery which has been cleared of the fruit is suitable for this purpose.

The Hardy Fruit Garden.

Morello Cherries.—The fruits will soon be ripening, and will need protection from birds. The nets applied to protect Strawberries may be used for Cherries. Supports must be given to carry the nets clear of the young growths.

Sweet Cherries.—When the fruits are all gathered, the trees should be given a good drenching with an insecticide to clear them of insect pests. Trees on walls will need plenty of water.

Strawberries.—The ground for the planting of Strawberries should be prepared at once, so that there shall be no delay when the plants are ready to put out. For late supplies a border at the foot of a north wall is most suitable. Royal Sovereign is still largely grown for the early and main crop. For late supplies, Waterloo, Givon's Late Prolific and Laxton's Latest are all excellent.

The Kitchen Garden.

Autumn-Sown Onions.—Prepare a piece of ground for this crop. A good dressing of soot should be dug into it, and if of a heavy character, wood-ashes also may be added. Last year we made a good sowing of Cranston's Excelsior on August 10, which gave a splendid return long before the ordinary winter varieties were ready.

Celery.—Earth up the early plants as they become ready. It is better to do this work a little at a time than to put large quantities of soil round the plants at one time. The planting of late Celery should be completed now.

Endive.—Make a sowing for use during the winter months. Water the drills previous to sowing if the ground is dry; and to assist germination the ground must be damped with a rosed can occasionally.

Herbs.—Small sowings of Chervil may be made in rows about nine inches apart. Basil often fails to grow outdoors, and it is necessary to grow it under glass. A sowing may be made now in pans. When large enough, the seedlings may be pricked into 6-inch pots, putting about three or four plants in a pot. Marjoram, Mint, Sage and Thyme may be cut now and hung in an airy shed to dry for winter use.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

Fruit Under Glass.

Pot Fruit.—The earlier fruits of Apples, Pears and Plums having now been gathered, the trees should be partly plunged and a fair amount of food given when applying water. Where insect pests exist, they ought to be promptly dealt with. Trees bearing fruit, having been removed outdoors to colour, must be shaded from very bright sunshine, and the syringe used freely in dry and bright weather.

Strawberries.—Preparations should be made for potting the Strawberry runners into their fruiting pots as soon as they are sufficiently rooted. For the earliest batch to be forced, use 5-inch pots; but for the general lot, 6-inch is the best size. The potting compost should not be made too fine, but must contain plenty of lime refuse, bone-meal and other artificial manures of a lasting nature. When potted, stand them on an ash-bed with full exposure to the sun and keep well syringed.

Early Figs in pots, and which have now ripened two crops of fruit, should not be allowed to mature any more fruit this season, or it will weaken the trees and possibly cripple the first crop for next year. Any requiring potting on should have attention before they finish their growth for the season. Figs growing in borders must also have an application of manure when watering.

The Hardy Fruit Garden.

Insect Pests.—Trees growing against walls, and especially Plums, are likely to be infested with insects, which disfigure and injure the young growths. A dull day should be chosen for applying insecticides to cleanse the trees.

Suckers arising from the stocks or roots of fruit trees must be pulled or twisted off as soon

as they appear. Old trees which are showing signs of exhaustion are most likely to produce suckers, although some young trees, even in good health, give trouble in this respect.

Plants Under Glass.

Zonal Pelargoniums.—Plants which are growing in frames for flowering during the winter should have the lights kept constantly off, except when there is a prolonged spell of wet weather. Flower-buds must be kept picked off, and a little manure should be added to the water when applying it.

Violets.—As the dew gets more plentiful during the night-time, these plants appear to grow more rapidly. If the weather is dry, they should still be freely syringed to keep the foliage clear of insect life. Either soot or Clay's Fertilizer should now be applied to get good, vigorous plants; but, at the same time, overlarge plants are not desirable, as they are apt to encourage the damping of flower-buds after removal to the frames. The runners will now be appearing faster than ever, and will need to be kept picked off to centre the energy in the crowns of the plants.

Tree Carnations.—The plants now establishing in flowering pots should be staked. Green-painted wooden stakes 3 feet in length are best. The young growths should be looped up separately, as it avoids breakages when cutting the blooms. Fine hemp twine is more durable and has a more tidy appearance than raffia used on these plants. Continue to damp among the pots and on the floors and paths of the houses on all fine days.

Heating Apparatus.—This is a good time of the year to have any repairs or changes made to the heating system. In any case, the pipes and boilers should have the water drained from them to get rid of any accumulation of sediment. Where much mineral or chalk is in the water, this should not be done too often, especially where sectional boilers are in use.

The Kitchen Garden.

Mushrooms.—Where a supply has to be kept up from the autumn and on through the winter months, a start should now be made to prepare beds for the Mushroom-house. Beds made up now will commence bearing in early October.

Watercress.—If one has not got the natural conditions for growing this subject—that is, in a stream of running water—a quantity of seed might be sown in cold frames or boxes and kept well shaded from sunshine. If protected from severe frost later on, excellent Watercress may be had all the winter from plants grown in this manner.

Cardoons, like Celery, must never be allowed to suffer from lack of moisture. When large enough, they should be tied and earthed up by gradual stages.

Lettuce.—After this date sowings need not be so frequent, but larger in quantity. In wet weather slugs devour the young seedlings as soon as they appear through the surface. To prevent this, scatter soot or wood-ashes where they are sown.

Tomatoes for late autumn fruiting should be got into their fruiting pots. Sufficient space must be left for applying top-dressings. If white fly is troublesome, fumigate on two successive nights. They quickly become exhausted.

Peas.—If the weather is dry, late Peas should be watered, to extend the season of supply as long as possible. If allowed to suffer from drought,

The Flower Garden.

Myosotis.—The plants raised from seed sown in June are ready for transplanting to their flowering quarters. As mildew is often a great trouble with this plant, a site should be chosen which will not encourage the disease. If attacked very badly, use a reliable mildew specific.

Roses.—The first and best display of the Hybrid Tea Roses being now over, encouragement should be given to the bushes now making their second growth, which will produce blooms through the autumn. Where one has a good supply of liquid manure from a farmyard, there is nothing to equal it if used at the proper strength during showery weather. In dry weather the beds should be watered first before applying the manure.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

THE USE OF VARIEGATED TREES AND SHRUBS.

IN no class of ornamental planting is more judgment and discrimination required than in the use of variegated and coloured trees and shrubs, as these plants can easily be overdone and a patchwork landscape be evolved that is never entirely satisfactory. The first thing to remember when planting is that Nature's colour is green, and, in every class of plant, green of some shade or other is the predominating colour. More than half the beauty of flowers or coloured foliage would be lost if there were no green to act as a foil to what without it would be harsh and glaring. In looking at a garden gay with flowers in the summer-time, it is pleasant after a while to rest the eye on a cool stretch of grass or the rustling leaves of trees. The colours of the flowers are not dimmed, but enhanced by the contrast. The eye, however, is rested by the change from the dazzle of reds, blues, pinks, &c., to the cool green of Nature.

A certain proportion of coloured foliage, however, is necessary in the garden, especially during the winter months, when the green of Nature is practically one uniformly deep tint, and a certain number of coloured evergreens is necessary to brighten the landscape. The following list comprises only the best and most easily grown variegated and coloured trees and shrubs. The heights given are only approximate, but will be found useful to the planter. Deciduous and evergreen subjects are treated separately as being more convenient for reference.

DECIDUOUS TREES AND SHRUBS.

Name.	Height in Feet.	Colour and English Name.
<i>Acanthopanax spinosum</i> var. <i>variegatum</i>	4	White variegated
<i>Acer Negundo</i> var. <i>variegatum</i>	12	"
" <i>aureum</i>	12	Golden yellow
" <i>palmatum</i> vars. <i>atropurpureum</i> , <i>purpureum</i> and <i>sanguineum</i>	6-8	Shades of deep purple and red
" <i>platanoides</i> var. <i>Schwedleri</i>	25	Bronzy red
" <i>Pseudo-platanus</i> var. <i>brilliantissima</i>	6-10	Terra-cotta, red in spring
<i>Cornus alba</i> var. <i>sibirica</i> variegata	4	White variegated
" " <i>Spæthii aurea</i>	4	Yellow "
" <i>Mas</i> var. <i>variegata</i>	8	White "
<i>Corylus maxima</i> var. <i>atropurpurea</i>	6	Purple Hazel
<i>Fagus sylvatica</i> var. <i>purpurea</i>	60	Purple Beech
" <i>Zlatia</i>	20	Golden Beech
<i>Populus deltoides</i> var. <i>aurea</i>	12	Golden Poplar
<i>Prunus pissardii</i>	20	Purple Plum
<i>Quercus Concordia</i>	12	Golden Oak
<i>Sambucus racemosa</i> var. <i>plumosa aurea</i>	6	Golden plumose Elder
<i>Ulmus Dampieri aurea</i>	6-8	Dwarf Golden Elm
" <i>Louis van Houtte</i>	25	Large Golden Elm
<i>Weigela amabilis</i> var. <i>Looymansii</i>	5	Golden yellow
" " variegata	5	White variegated

EVERGREEN TREES AND SHRUBS.

Name.	Height in Feet.	Colour and English Name.
<i>Arundinaria auricoma</i> (pretty dwarf Bamboo)	3	Yellow variegated
" <i>Fortunei</i> (pretty dwarf Bamboo)	2	White
<i>Atriplex Halimus</i>	3	Silvery grey "
<i>Buxus sempervirens</i> var. <i>aurea</i>	4	Golden Box
" <i>elegantissima</i>	3	Silver Box
<i>Cassinia fulvida</i>	3	Feathery golden foliage
<i>Cedrus atlantica</i> var. <i>aurea</i>	20	Golden Cedar
" <i>glauca</i>	30	Blue Cedar
<i>Cupressus lawsoniana</i> var. <i>lutea</i>	15	Golden yellow
" <i>Triomphe de Boskoop</i>	20	Bright glaucous blue
" <i>macrocarpa</i> var. <i>lutea</i>	40	Golden
" <i>obtusa</i> var. <i>filifera aurea</i>	10	Feathery yellow
" <i>nana aurea</i>	6	Bright
" <i>pisifera</i> var. <i>plumosa aurea</i>	20	Feathery golden foliage
" <i>squarrosa</i>	20	Feathery blue
<i>Elæagnus pungens</i> var. <i>Simoni aurea</i>	8	Yellow variegated
<i>Euonymus japonicus</i> var. <i>ovatus aureus</i>	5	"
<i>Hedera arborescens</i> (Tree Ivy)	4	Gold and silver variegated
<i>Ilex Aquifolium</i> (Holly) vars. <i>Golden Queen</i> , <i>Golden King</i> , <i>Silver King</i> , <i>Silver Variegated</i> and <i>watereriana</i>	10-20	All specially bright in winter
<i>Juniperus chinensis</i> var. <i>albo-variegata</i>	20	Irregularly marked white
" <i>aurea</i>	10	Golden foliage
<i>Ligustrum ovalifolium</i> var. <i>aureum</i>	6	Golden Privet
<i>Picea pungens</i> var. <i>glauca</i>	12	Blue Spruce
<i>Pinus sylvestris</i> var. <i>aurea</i>	8	Golden Scotch Pine
<i>Santolina Chamæcyparissus</i>	2-3	Silvery grey
<i>Taxus baccata</i> var. <i>aurea</i>	12	Golden English Yew
" <i>fastigiata aurea</i>	12	Golden Irish Yew
<i>Thuja Lobbi</i> var. <i>zebrina</i>	30	Yellow variegated and striped

J. C.

NATIONAL DIPLOMA OF HORTICULTURE EXAMINATIONS.

THE 1915 Examinations for the National Diploma in Horticulture—established by the Royal Horticultural Society in conjunction with, and by the approval of, H.M. Government—were held at the Society's Gardens at Wisley in June. At their meeting on the 6th inst. the Council approved the recommendations of the examiners that the diploma should be bestowed upon the following, who have satisfactorily passed the Final Examination:

Section 1.—W. Chislett, Oakleigh, Bishopsworth, near Bristol; Gertrude Cope, Manor House Gardens, Northfield, Birmingham; Sylvia E. Cornelius-Wheeler, Elmwood School of Gardening, Cosham; F. W. Costin, Clemsford, Shinfield, Reading; William C. Crisp, Woodcote Grove Cottage, Coulsdon, Surrey; John James Green, Higher King Street, Hurst, Ashton-under-Lyne; H. L. Jones, The Gardens, Clerk Hill, Whalley, near Blackburn; Alfred B. Melles, 39, Bushwood Road, Kew, Surrey; William Stewart, Oakleigh, Bishopsworth, near Bristol; C. C. Titchmarsh, Royal Horticultural Society's Gardens, Wisley, Ripley; and William C. White, 46, Frederick's Road, Beccles, East Suffolk.

Section 1c (Fruit-growing Under Glass and in the Open).—Frank A. Griffiths, South View, Alverstone, Brading, Isle of Wight; and George Stuart, 13, George Square, Edinburgh.

Section 2 (Hardy Fruit-growing for Market).—Charles W. B. Wright, 7, St. Vincent Street, Edinburgh; and Henry Goude, Elvin Road, East Dereham, Norfolk.

Section 3 (Market Gardening, Outdoor).—

Florence M. Verrall, Letheringsett, Holt, Norfolk.

Section 7 (Horticultural Inspection).—Thomas Richardson, 106, Fairholm Road, Benwell Grove, Newcastle-on-Tyne.

Further, the following candidates satisfied the examiners' requirements in the Preliminary Examination:

Division A.—A. D. Turner, Madryn Castle Farm School, Pwllheli, North Wales.

Division B.—Robert Gibson, The Spital Gardens, near Hexham; Edna M. Gunnell, Horticultural College, Swanley, Kent; and Thomas Payne, 223, Bramford Road, Ipswich.

Division C.—David G. Henry, 3, Meadowbank Crescent, Edinburgh; Archibald Macey, Rufford Abbey Gardens, Ollerton; Alfred B. Moody, 28, Drake Street, Enfield; Joseph E. Simms, 44, New Road, Grays, Essex; Henry A. Smith, The Castle Gardens, Bothwell, Lanarkshire; and Hilda M. B. Thrupp, 24, Woroxzow Road, St. John's Wood, N.W.

These candidates are accordingly eligible to take the Final Examination in 1916 if they have then spent six years in regular garden work, or as soon thereafter as they can satisfy this requirement.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

LILY BULB FOR INSPECTION (L. W. S.).—The bulb of *Lilium auratum* platyphyllum which you send is too far gone to enable us to say definitely what is the cause of the decay. The grubs in it include the small Narcissus fly, *Eumerus strigatus*, which is thought to be the cause of the decay of Narcissus bulbs, &c., and also some larvae of a fungus fly belonging to the genus *Sciara*. We think it quite probable that the former may have been the source of the trouble, which has certainly been increased by the entry of bacteria and the like, leading to the complete decay of the bulb.

HOLLYHOCK LEAVES FOR INSPECTION (H. D.).—Your Hollyhocks are attacked by the insidious Hollyhock disease (*Puccinia malvacearum*). We advise you to cut off and burn all badly attacked leaves, and then adopt the following treatment recommended by Messrs. Webb and Brand, the well-known Hollyhock specialists: Slake a bushel of lime and, when cool, add a bushel of soot, 4lb. of flowers of sulphur and 2oz. of sulphate of copper, finely powdered. Pass the mixture through a fine-meshed sieve and dust the plants well over with it, when the leaves are damp, three or four times during the growing season. You can, of course, make up a smaller quantity, so long as you observe the correct proportions of each constituent.

BULBS FAILING (B. L.).—We imagine that the soil conditions to which you refer are a great factor in the case, to an even greater extent, probably, than those of the atmosphere by which you are surrounded. Usually, quite a variety of bulbous plants will succeed fairly well in smoky districts if the soil is generously cultivated;

but if, in addition to the drawbacks of the locality, the soil cultivation is neglected or inadequately done, the crops referred to are doubly handicapped. Try what trenching of the soil, with thorough manuring and adding lime at the rate of two bushels per rod of ground, will do, with, if possible, an abundant supply of grit. This should greatly improve the heavy soil and render it more fit. In such soil you should be able to grow the following Daffodils: Emperor, Sir Watkin, Barri conspicuus (double yellow), double Poeticus, and others. Liliun croceum, L. umbellatum and, if sunny, L. candidum might be tried also. Muscari, Lily of the Valley, Crown Imperials and Fritillaria Meleagris also usually succeed in such a soil. The whole of these may remain permanently planted; there is no real need to lift them.

LILIUM CANDIDUM (*W. F. Glydon*).—This unique Lily thrives best in rather poor soil, and in such and in a warm position may remain in good condition for years. The soil best suited to it, perhaps, is one of light or moderately holding loam to which sand, burnt clay and old mortar to the extent of one-third have been added. A trench of this a foot wide and deep should answer well. If available, we should for preference select old mortar—old ceiling plaster would answer just as well. The plant is not of a gross-feeding nature, and manure should not be added, or, if added, not in greater proportion than that of one-sixth of the soil if the latter be very poor. Any manure must be well incorporated with the soil, and should be thoroughly decomposed. The hottest position you can command should be selected, and the bulbs buried not more than 3 inches deep. The end of July or quite early in August is the best time to replant. The position should be well drained.

ORANGE, SCARLET, AND YELLOW BORDER FLOWERS (*Edward Swales*).—Trollius asiaticus, T. Fortunei flore pleno, T. Orange Globe, Liliun croceum, Asclepias tuberosa, Erigeron aurantiacus, Geum Heldreichii, G. H. splendens, Heliopsis laevis superbus, Hemerocallis aurantiaca major, H. aureole and Inula glandulosa are all of orange shade, and could be supplemented by border Chrysanthemums if more were required. Of scarlet, you might have Lychnis chalcedonica, L. Viscaria rubra plena, Zauschneria californica, Armeria Cephalotes rubra, Anemone fulgens, Aquilegia Skinneri (scarlet and yellow), Geum Mrs. Bradshaw (a glorious plant), Dianthus barbatus magnificus, Gaillardias of crimson and scarlet, Oriental Poppies (crimson and scarlet), Monarda didyma, M. d. Cambridge (scarlet), Lobelia cardinalis (intense scarlet), L. firefly (rich scarlet), Heuchera sanguinea, H. s. splendens, H. Flambeau, H. Walkeri and others, double crimson Peony (Paeonia tenuifolia flore pleno), Pentstemon barbatus Torreyi, Phloxes Flambeau, Coquelicot, coccinea and others, with much besides. Of deep yellow, Coreopsis lanceolata, Gaillardia Lady Rolleston, Alyssum saxatile compactum, Hemerocallis Dumortieri, H. flava, Helenium Hoopesii, H. pumilum magnificum, Iris aurea, I. Monnierii, Senecio Doronicum, Solidago Virgaurea aurea, S. Golden Wings, Helianthus multiflorus, H. m. major, H. m. grandiflorus, H. m. anemone-florus plenus and many more. Border Chrysanthemums in this colour could also be added if desired; hence you will see there is no scarcity of the colours you require.

TREES AND SHRUBS.

TRANSPLANTING BAMBOOS (*Trehawke H. Kekewich*).—In the event of the weather being moderately wet, the Bamboos mentioned can be transplanted in August or September, providing the roots are not unduly pulled about. That time, however, is not so good as May for the purpose, for in the event of their not becoming established quickly in their new quarters, many of the leaves are likely to turn brown, and will continue so throughout the winter, whereas the leaves are falling naturally in May, and new leaves are soon produced. Should the weather be dry and hot during August and September, it would be inadvisable to start the work. October is rather late for transplanting Bamboos.

FLOWERS FOR EDITOR'S TABLE (*J. M. N.*).—The specimens kindly sent for the Editor's table are Callistemon salignus, Metrosideros florida, or, correctly, M. robusta, is an allied plant, but it has much larger leaves, and is easily distinguished. All the pruning required is to cut the branches back a little after flowering and thin out some of the weak wood. We are interested to know that it is flowering so well with you out of doors at Tunbridge Wells. Fabiana imbricata does not require much pruning. Simply remove the points of the shoots to keep the plant bushy. We do not know of any book that deals specially with the semi-tender plants you mention. Many of them are, however, included in "Trees and Shrubs for English Gardens," by E. T. Cook, obtainable from this office, price 12s. net.

ROSE GARDEN.

MAKING A SMALL ROSE GARDEN (*Quantock*).—In the plot of ground wherein you propose to form a Rose garden the Apple trees will preclude you making a really good, effective design. Perhaps you could remove the tree that stands in the centre of the plot, and this would allow you to have a series of circular and parallel beds. The circular beds may be from 5 feet to 6 feet in diameter, and the parallel-gram beds any length, but about four feet over. The stems of the fruit trees could have a Rambler Rose planted against each, and would produce a fine effect. One or two weeping Roses interspersed here and there would add considerably to the beauty of the whole. A few arches placed over the path leading to the stables would make a pleasing picture when well

covered with ramblers, and you could possibly arrange for one leading from this path on to the proposed Rose garden. Some climbing Roses upon the wall, especially the Hybrid Teas and Teas, would give you an almost perpetual supply of flowers in your beautiful country.

TWELVE GOOD EXHIBITION ROSES (*Constant Reader*).—William Shean, Mrs. A. E. Coxhead, Lady Ashtown, Frau Karl Druschki, Florence Pemberton, J. B. Clark, Mrs. W. J. Grant, Mildred Grant, Mrs. A. Hammond, Melanie Soupert, George Dickson and Mrs. Foley Hobbs.

THE GREENHOUSE.

SMALL UNHEATED GREENHOUSE (*Lancashire*).—A great deal will depend upon the situation of your small structure, as, if in the open, the plants will suffer nearly as much as in the open ground in the event of a severe frost. Probably, however, you could make arrangements to cover it if needed. Cuttings of Pentstemons may be put in whenever young, sturdy shoots at the base are available, so that they will be well rooted before the winter. They will strike better in a frame or hand-light kept close and shaded till roots are produced, when they may be taken into your greenhouse, giving them plenty of air whenever the weather is mild. They can be wintered in pots 3 inches or 4 inches in diameter, giving them a shift into larger ones with the return of spring. The same remarks will apply to Antirrhinums if you intend to strike them from cuttings. If you wish to raise them from seeds, they may be sown now, and the young plants wintered in small pots. In the case of Clarkias and annual Larkspurs, your best plan will be to wait till the end of February, and, considering the small size of your structure, Antirrhinum seeds would probably be most satisfactory if sown then. You must be careful not to overcrowd, or to give an excess of water during the winter.

FRUIT GARDEN.

RUST ON VINE LEAVES AND BERRIES (*M. M. P.*).—The Vines are attacked by thrips, for which the best remedy will be fumigation. More ventilation of the vinery is also called for, as the foliage is showing signs of scorching.

GRAPES FOR INSPECTION (*A. H.*).—The Grapes appear to us to be suffering from water having lodged upon them, and from the atmosphere being too moist. It would be well to ventilate a little more. No fungus is visible at present, but, if they become worse, send us some more berries.

RASPBERRIES FAILING (*S. A. W.*).—We can find no fungus or insects about the Raspberries to account for the failure of the fruiting, and think that they are probably suffering from the late spring frosts, which play strange pranks at times, damaging one plant here and another there in the rows, and letting the others between go scot free.

PEAR LEAVES EATEN (*A. E. F.*).—The Pears are attacked by the Pear slugworm, the larva of a sawfly. The best treatment is to throw freshly slaked lime over the tree, and two days later repeat the dose. This induces the grub to try to cast its skin twice rapidly and kills it. Or the tree may be sprayed with lead arsenate, 1lb. to 15 gallons of water.

RASPBERRY CANES FOR INSPECTION (*Milton*).—You will find pale grey blotches on the Raspberry canes, and on these small black spots, the fruits of the fungus Hendersonia rubi. This fungus appears to be spreading, and the best method of dealing with it is to cut out all the diseased canes, or diseased parts of them, and spray the remainder with Bordeaux mixture.

VINE LEAVES FOR INSPECTION (*A Constant Reader*).—Some Vines are subject to the leaf-scorch, which yours show, especially when the atmospheric conditions are not quite all they should be. Careful examination of the leaves sent shows the presence of minute warts on their lower surface, and these indicate that at some time during their development the air has been too moist. The leaves, naturally, suffer when ventilation is given freely when in this condition, for they have been formed for moister conditions.

PEARS DISEASED (*Oxon*).—The Pears are attacked by the fungus Fusicladium pyrinum, causing Pear scab. It is too late to do anything this season except to spray now with Bordeaux mixture. In the winter remove all the branches and spurs which appear to have cracks in the bark, and spray the rest of the tree with a solution of 1lb. of copper sulphate in 25 gallons of water. Do this while the trees are dormant. Spray with Bordeaux mixture just before the buds burst, again just after the petals fall, and once more about the first week in June. This treatment may appear troublesome, but if carried out will result in the harvesting of clean and healthy fruit.

KITCHEN GARDEN.

CUCUMBERS BITTER (*J. McB.*).—The bitterness is due to seed variation, and is incurable, as it does not depend upon any cultural conditions. Such variations occur even when the greatest care is taken in saving seed, and no one is to blame for them, for, as far as we can see, they are purely accidental.

MISCELLANEOUS.

PLANTING WALL TREE AND LILIES (*Grace Gardener*).—The Apricot is somewhat less liable to silver-leaf disease

than the Plum, and may be planted in the position, though in all probability another Plum may for some time remain immune from attack. If possible, you should discard the soil where the old trees have grown, replacing it with sound chalky loam to a depth of 2½ feet, with good drainage below. Should this prove impracticable, thoroughly dress the positions now with freshly slaked lime, forking over the soil once or twice before replanting. Lilies of the stem-rooting class should always be planted 6 inches to 8 inches deep. The non-reappearance of the plants is not due to the depth of planting, but to basal decay setting up in the bulbs, and in all probability it was chiefly the stem-roots of the plants that contributed to your last year's success. Had you examined the positions, you would doubtless have found a decaying mass of scales only existing. You do not say what the Lilies were. The Snake's-head or Widow Iris, I. tuberosa, is not difficult to grow and flower in light, dry, perfectly drained soils and positions. In such we flower it annually. Wet and cold soils it dislikes. If the soil is not dry and warm, you should make it so by the addition of light loam and sand, and lift and give the tubers a three months' rest in sand after flowering.

NAMES OF PLANTS.—*E. S. Martin*.—Probably Liliun Martagon, but flowers were quite gone when received.—*E. M. D.*—Syringa Emodi.—*N. Strickland*.—Deutzia crenata flore pleno purpurea (quite hardy).—*C.C.F.*—Orobancha minor; Linaria arenaria.—*Miss Butler*.—Common Thyme, Thymus Serpyllum.—*J. Smith*.—Alstroemeria hemantha.

SOCIETIES.

MIDLAND CARNATION AND PICOTEE SOCIETY.

THE elements were decidedly unfavourable to the twenty-fifth annual show of this society, which was held in the Edgbaston Botanic Gardens on July 23 and 24. A late season prevented many of the usual exhibitors from competing, and heavy thunderstorms during the opening day adversely affected the attendance. But although the show was smaller than usual, there were many beautiful flowers, especially among the selfs and yellow-ground fancies, to admire. Mr. T. Humphreys, the well-known Curator of the Gardens, who is also hon. secretary of the Midland Carnation Society, made excellent arrangements, and the judges are also to be congratulated on their work.

OPEN CLASSES.

Flowers on Cards.—Messrs. A. R. Brown, Limited, King's Norton, won the first prizes for twelve selfs, for twelve fancy Carnations and for twelve yellow-ground Picotees with very even sets of good blooms. Their selfs were admirable, and of these Furthest North, Mrs. Elliott Douglas, Rosy Morn, Bob Acres and Ann Hathaway were the very best. The fancies were really excellent, and each bloom deserved mention; but we must content ourselves with naming Becky Sharp, Bombardier, Charles Chappell, Butterfly, Sir Olaf and Mandarin. Of their yellow-ground Picotees such light-edged sorts as Onward, Mrs. C. F. Bundenberg and Queenie were admirable, as also were the heavy-edged varieties Margaret Lennox and Pure Gem. Mr. C. H. Herbert, Acock's Green, was second in his class, and he included many desirable flowers, of which Mrs. George Marshall, Daffodil, Bookham White (selfs), Alice B. Stewart, Queen Eleanor, Edenside (fancy), Princess, Gloria and Exquisite (Picotees) are a representative selection. Mr. Bruce Waite, Harborne, won the third prizes in these classes.

Mr. Herbert won the first prizes for twelve white-ground Picotees and twelve bizarre or flake Carnations with quite good Picotees, but only moderate quality Carnations. The best Picotees were Ganymede, Mrs. Twist (heavy edged), Fortrose and Fair Maiden (light edged). Of his Carnations the bizarres were better than the flakes. Mr. Waite was second in the Picotee class, showing in Silas Osbaldeston, Margaret and E. Shorthouse three good heavy-edged varieties. Mr. Waite won the second prize for Carnations, and Messrs. Brown were third in both classes.

Flowers in Vases.—In these classes three blooms of six distinct varieties were required. Messrs. Brown won easily for selfs and fancies with splendid exhibits. The fancies were excellent, and of these we selected Becky Sharp, Alice Byron Stewart, Queen Eleanor and Linkman, and of the selfs Rosy Morn, Britannia and Mrs. George Marshall as being especially worthy of mention. In the self class there was a close fight for second place, which fell to Mr. R. G. Rudd, King's Heath, who had Furthest North and Solfaterre particularly good. Mr. Waite won the second prize for fancies, of which he showed fine blooms of Becky Sharp and Skirmisher. Mr. J. Bayliss, Walsall, won both third prizes.

In the two Picotee classes Mr. Waite was the chief winner. The heavy-edged sorts were the best among his yellow grounds, such as Corona, Mrs. J. J. Keen and Nell Kenyon being admirable. Mrs. Hammond, Maud Brown and Mrs. Openshaw were the pick of the white-ground varieties. Messrs. Brown were awarded the second prize for yellow-ground varieties, and a similar honour fell to Mr. Herbert for white-ground Picotees.

AMATEURS' CLASSES.

Flowers on Cards.—The competition in these classes, which required six blooms of distinct varieties, was poor. There were only two exhibits in the first three, and one each in the last two classes. There was little to choose

between the Rev. C. A. Gottwaltz, Droitswich, and Mr. J. W. Tranter, Solihull, in the class for self; but the former's exhibit was slightly the better. His best blooms were of Albion, Wyatt and John Pope; while Mr. Tranter showed good examples of Fujiyama and Furthest North.

Mr. Tranter was awarded the first prizes for fancy and for flake or bizarre Carnations, and for yellow-ground Picotees. He had especially good blooms of Linkman, Skirmisher (fancy), Meteor and Black Diamond (bizarre Carnations), John Ruskin, Onward and Mrs. J. J. Keen (yellow-ground Picotees). Mr. Gottwaltz's second-prize fancy Carnations were large, but a trifle coarse, though Bombardier was very good. Of his yellow-ground Picotees, Exquisite and Corona were quite good. With such sorts as Pride of Leyton, Lucy and Georgina he was awarded the first prize for white-ground Picotees.

Flowers in Vases.—Mr. A. H. Birchley, Selly Oak, swept the board in the four classes, which each required three blooms of three distinct varieties, with excellent sets. Of his selfs Daffodil, Gordon Douglas and Bob Acres were delightful. John Kidd and Linkman (fancies) Togo and Neil Kenyon (yellow-ground Picotees), Fair Maiden and Lavinia (white-ground Picotees) were also admirable. Mr. Tranter won the second prizes for selfs and fancies, and Mr. Gottwaltz was similarly successful in the Picotee classes.

DIVISION III.

In the classes for smaller growers the competition was much better, and many of the flowers were highly creditable. Mr. E. Kenwright, Smethwick, was the most successful exhibitor of flowers on cards.

Mr. P. J. Brookes, Bearwood, won first prizes for self and fancy Carnations and yellow-ground Picotees in vases.

Mr. F. Woodward, Bournville, took firsts for fancy Carnations on cards, for fancies, and white-ground Picotees in vases.

Mr. A. Hall, Harborne, won chief honours for self Carnations in vases.

In the novice classes Mr. A. J. Hill, Handsworth, won all four classes with admirable exhibits. His six Carnations on cards were among the best in the show, and if he continues he will be a competitor to reckon with.

Robert Sydenham, Limited, Birmingham, provided a special class for nine varieties of Sweet Peas, in which Mr. A. Duncombe, Oswestry, won the first prize with a splendid exhibit of such sorts as Mrs. C. W. Bredmore, Prince George, Constance Oliver, Etta Dyke and Hercules. Mr. J. Secaney, Harborne, was second with smaller spikes arranged very attractively.

PREMIER BLOOMS.

Carnations on Cards.—Bizarre: Master Fred, shown by Mr. C. H. Herbert. Flake: J. J. Keen, by Mr. Herbert. Self: Jean Douglas, by Messrs. A. R. Brown, Limited.

Picotees on Cards.—Heavy edged white ground: Edmund Shorthouse, by Mr. R. B. Waite. Light edged white ground: Fair Maiden, by Mr. Herbert. Heavy edged yellow ground: Togo, by Messrs. Brown. Light edged white ground: Eclipse, by Mr. Herbert.

MEDAL AWARDS.

In Divisions I. and II. medals were offered by the Birmingham Botanical and Horticultural Society for the highest and second highest aggregates of points. The silver medal in Division I. was won by Messrs. A. R. Brown, and the bronze by Mr. R. B. Waite. The silver medal in Division II. was won by the Rev. C. A. Gottwaltz, and the bronze by Mr. Tranter.

The W. Walters Butler silver medal for the highest aggregate in Division III. was won by Mr. F. Woodward. The Midland Carnation Society awarded a silver-gilt medal to Messrs. W. H. Simpson and Sons, Birmingham, for a collection of hardy border flowers and culinary Peas.

A silver medal was awarded to Mr. C. H. Herbert, Acoc's Green, for border flowers.

A bronze medal was awarded to Mr. R. G. Rudd, King's Norton, for Carnations and Picotees.

NATIONAL CARNATION AND PICOTEE SOCIETY (SOUTHERN SECTION).

This society held its thirty-ninth exhibition in the Royal Horticultural Society's Hall on July 22, a much smaller show than usual being got together. Generally, however, the quality of the flowers was high. As usual, Mr. Douglas was a chief prize-winner, his exhibits taking the lead in the first ten classes. Following are particulars of the more important classes.

DIVISION I.—OPEN.

Flowers Shown on Cards.—For a stand of twelve blooms each of bizarres and flakes, selfs, fancies, white-ground and yellow-ground Picotees, Mr. J. Douglas, Great Bookham, was first in each case, his stronger lot being the fancies, in which he was the only exhibitor. Pasquin, Linkman, Sam Weller, Queen Eleanor and A. B. Stewart were among the best.

Flowers in Vases.—Four selfs: First, Mr. J. Douglas, who staged Daffodil (yellow), Pink Clove, Cardinal and Furthest North (white); a particularly good set. Second, Mr. H. Lakeman, Thornton Heath, who had Bookham White, Rosy Morn and Mrs. G. Marshall (crimson).

Four Carnations (fancies): First, Mr. Douglas, his set comprising Pasquin, Edenside, Liberty and A. B. Stewart; second, Mr. Lakeman. These two exhibitors occupied similar positions in the classes for white-ground and yellow-ground Picotees, and were the only exhibitors.

For nine distinct varieties, selfs, fancies and yellow-ground Picotees, three blooms of each, Mr. Douglas and Mr. Lakeman were again the only competitors, taking first and second prizes respectively. The former had Pasquin, J. Ruskin, Edenside, Daffodil, Elizabeth Shifner,

Bookham White and Exquisite. Mr. Lakeman's best were Pasquin, Daffodil, Lord Steyne and Thomas à Becket. The flowers were very fine throughout.

AMATEURS.

Flowers on Cards.—Six blooms, flakes and bizarres: First, Mr. J. Fairlee, Acton, who staged J. S. Hedderly, Robert Houlgrave, Mestor and others; second, Mr. J. J. Keen, Southampton.

Six selfs, distinct: First, Mr. H. R. Taylor, Cheam, whose Tubal (crimson) was awarded a premier prize. Ambition, Mrs. R. T. Smith (pink) and Daffodil were also good. Second, Mr. J. A. Fort, Winchester.

For six fancies Mr. H. R. Taylor was again first, having Pasquin, Mrs. Leo Hunter, Hidalgo, Linkman, Lord Steyne and Queen Eleanor; second, Mr. J. A. Fort, Winchester.

Six white-ground Picotees: First, Mr. J. J. Keen, Southampton, who showed Favourite, John Smith, Clytre, Lady Louisa, Lottie and Fair Maiden; second, Mr. H. R. Taylor, Cheam. Four competed.

For six yellow-ground Picotees Mr. H. R. Taylor was first with Gloria, Corona, J. Ruskin, Eclipse and others.

Flowers in Vases Without Cards.—Three blooms, one variety, pink or rose self: First, Miss Shifner, Lewes, with Rosy Morn. White self: First, Mr. H. W. Frostick, Thornton Heath. Five exhibited, all showing Bookham White. Dark red or maroon self: Five again competed, Mr. J. E. Gray, Leyton, being first; Mr. R. Morton, Woodside Park, second, both having Mrs. George Marshall (maroon). Yellow self: The last two exhibitors named were in the same order, both showing Daffodil in capital form. Scarlet self: Mr. R. Morton was first with Fujiyama. Mr. Morton was also first for three yellow-ground Picotees, having Onward (light edge). Buff or terra-cotta self: First, Mr. J. A. Fort; second, Miss Shifner, both showing Elizabeth Shifner; third, Mr. J. E. Gray with Dora Blick.

Six distinct varieties, three of each, selfs, fancies and yellow-ground Picotees: First, Miss Shifner, Lewes, who had Cardinal, J. Rudd, Togo, Margaret Lennox, Rosy Morn and Rony Buchanan; second, Mr. J. A. Fort, Winchester, who had Dora Blick, Lord Steyne and Hercules (very good). Four good collections were staged.

Six selfs (Division III.): First, Mr. E. W. Painter, Brentford, with Bookham White, Rosy Morn, Daffodil, Tubal, Etna and Hildegard. This exhibitor was also first for six fancies, staging Lord Steyne, Queen Eleanor, Skirmisher, Rhea, Sam Weller and Father O'Flynn. Six competed in each class.

OPEN TO ALL.

Flowers in Vases Without Cards. Nine blooms, one variety only in each, of the following classes: Pink or rose self: First, Mr. Douglas; second, Mr. H. Lakeman, both showing Innocence (soft pink). White self: Mr. Lakeman was first, having a magnificent vase of Bookham White; second, Mr. Douglas, with the refined Mrs. Henwood. Dark red or maroon self (four competed): First, Mr. Lakeman; second, Mr. Douglas, with Mrs. George Marshall and The King respectively. Yellow self (four again staged, all showing Daffodil), Mr. Lakeman having a superb vase in the first place; Mr. Douglas was a good second. Scarlet self: Mr. Douglas first with a grand vase of Fujiyama. Buff or terra-cotta self: Mr. Lakeman and Mr. Douglas scored in the order named, both showing Elizabeth Shifner well. The class for yellow or buff ground fancies was splendidly contested, Mr. Lakeman first, having a superb vase of Pasquin; Mr. Douglas second with very fine Lord Steyne; Mr. R. Morton having Edenside in the third place. Five competitors staged, all showing well. Nine blooms, fancies, other than yellow or buff ground: First, Mr. Douglas with a handsome vase of Daisy Walker (white ground); second, Mr. Lakeman, who staged The Bride.

Cup Winners.—Division I, Mr. J. Douglas; Division II, Miss Shifner. Cartwright Cup: Mr. Lakeman. Martin Smith Cup: Mr. E. W. Painter, Brentford.

Premier Blooms.—Dressed: Master Fred (bizarre), Mr. J. J. Lea; Gordon Lennox (flaked), Mr. J. Fairlee; Tubal (self), Mr. H. R. Taylor; Edenside (fancy), Mr. Douglas; J. Smith (H.E.W.G.), Mr. J. J. Keen; Mrs. Hammond (L.E.W.G.), Mr. C. Blick; Her Majesty (H.E.Y.P.), Mr. C. Blick; Eclipse (L.E.Y.P.), Mr. J. J. Keen. Undressed: Bookham White (self), Mr. Lakeman; Lord Steyne (fancy), Mr. Douglas; Onward (L.E. Picotee), Mr. Fort; Togo (H.E. Picotee), Mr. R. Morton; Othello (W.G. fancy), Mr. Douglas.

THE SUMMER EXHIBITION OF THE ROSE SOCIETY OF ONTARIO, CANADA.

THE third summer exhibition of Roses was held by the Rose Society of Ontario on Friday, June 25, at the Margaret Eaton Hall, Toronto. It may be said that in every way the show was a marked improvement upon those of the two preceding years of the society's life, and a very satisfactory feature was the presence in larger numbers of exhibitors in the amateur class, whose encouragement is one of the main objects of the society. There were in all seventy-five exhibits and thirty exhibitors, of whom twenty were in the amateur class. The early part of June was cool, with an abundance of rain, and sunshine, the weather was unusually favourable for the Roses, causing an exceptional brilliance in colour, with in the flower than can usually be obtained here.

The names of the professional exhibitors were as follows: Mr. J. T. Moore, Moore Park; Mr. Lawrence, Mr. Thomas Manton and Mr. Muston of the Toronto Horticultural Company.

Mr. J. T. Moore is the owner of large Rose plantations in North Toronto. His Roses are under the practical

care of his able superintendent, Mr. James Bryson, and his exhibit of Perpetuals and Hybrid Teas was especially fine. Among many hundreds of others, the later favourites, such as Juliet, Betty, Bessie Brown, Lyon Rose, Mrs. Wallace Rowe, General Janssen, Miss Alice de Rothschild and Lady Alice Stanley, found places upon his benches.

Mr. J. T. Moore was sole exhibitor in the novelty class. This always popular exhibit included beautiful buds of Old Gold, Willowmere, Mrs. Ambrose Ricardo, Florence Forrester, Mrs. F. W. Vanderbilt, Mrs. Charles Pearson, Mrs. James Lynas, Colleen and Mme. Edouard Herriot.

Mr. Thomas Manton, who is one of Toronto's oldest established and most beautiful decorators, has always at all shows added to the cultivator's skill the talent of the artist, and his representation, by means of single Roses and foliage fastened to the wall, of a climbing and fully blooming Rose was a great attraction.

Mr. Lawrence showed a fine exhibit of that magnificent crimson Hybrid Tea Hadley, for whose popularity he is responsible in Toronto.

Mr. Muston showed a very dainty arrangement of Roses in vases, in a space permitted for such an exhibition.

The semi-professional exhibitors were Sir Edmund Osler, M.P., and Mr. Alexander McPherson, Superintendent of Alexandra Park Gardens.

The semi-amateurs were Mrs. A. Patterson, the president (Mrs. Allen Baines) and Mr. L. McCarthy.

The amateurs were Mrs. W. H. Aikens, Dr. Boddington, Mrs. Barr, Mrs. Stayner, Mr. Reginald Northcote, Mrs. Herbert Mason, Mrs. Ruddy (Brantford, Ontario), Mrs. Watt (Brantford), Mrs. E. P. Smith, Mr. McMichael, Mr. Raymond, Dr. Temple, Mrs. Charles Temple, Dr. Rolph, Miss Ridout, Miss Armour (hon. secretary), Mrs. Ward and Mrs. George Wilson.

It would be impossible to give detailed lists of all the exhibits. The collections of Mrs. Ruddy and of Mrs. Watt of Brantford included Sunburst, Lady Alice Stanley, Florence Pemberton, Evelyn Dauntsey, Mrs. Theodore Roosevelt, Dean Hole and Mabel Drew, and everywhere there were signs of a desire to make and to keep acquaintance with the new-comers among the Hybrid Teas. For the rest, it may be said that they formed a collection of very fine, well-chosen and well-cared-for Hybrid Perpetuals, Hybrid Teas, Teas and Bourbons, and among them old friends' faces, such as La France, Caroline Testout and Souvenir de la Malmaison, lost nothing by comparison with the newer shades and newer kinds of Hybrid Tea Roses. The general effect was very brilliant.

The Rose Society of Ontario tries with respect and affection to follow in the footsteps of its great leader, the National Rose Society of the homeland. Therefore its stands are of the same pattern, and its method of exhibition is in tubes let into the stands and surrounded by leaf moss. These long lines of dazzling colour were thrown into relief against the table decorations at the end of the hall; while beyond these again, upon a raised platform, were the beautifully decorated tea-tables, with the Red Cross as their sign and symbol, which were organised and arranged by Mrs. Reginald Northcote, assisted by a very willing band of young workers; for amid these days of dreadful war in which our dear land is battling for freedom and for honour, the Rose Society did not forget its part. How would this be possible, seeing that its very purpose is to spread throughout the length and breadth of Canada the love of England's emblematic flower, whose attractions of exquisite form, colour and perfume find deepest response in every British heart? Therefore it was agreed that all the proceeds of the tea-tables and half the door money should be given to the Canadian Red Cross Fund, while in the evening the Roses were most successfully sold by auction by Mr. Bryon in aid of a fund to provide comforts for the Canadian Grenadiers.

The exhibition was opened at half-past two by Sir Edmund Osler, M.P., and both in the afternoon and evening there was a crowded attendance. The growing enthusiasm of the amateurs found practical expression in the generous gift of two extra amateur prizes for next year's schedule by Mr. McMichael, himself an amateur, whose exhibit, especially of magnificent specimens of Captain Hayward, proved his skill.

CHURCH ARMY "CITY GARDENS."

THE annual distribution of prizes to successful plottolders of the Church Army "City Gardens" took place on Saturday, the 17th inst., at 4 p.m. One of the actual gardens in Elverton Street, Westminster (at the rear of the Royal Horticultural Society's Hall), was chosen for the ceremony; but the rain necessitated holding it at the Church Army Labour Yard in Artillery Row. Mr. W. Paynter, chairman of the City Gardens Department, presided, and briefly reviewed the successful progress of this venture, started in 1909, mentioning that the society intended to open up another garden at Hammersmith. The hon. secretary, Mr. H. T. Bennett, then read a letter from a plottolder now in the trenches, and afterwards the report on the gardens, which Mr. Basil Holmes of the Public Gardens Association had drawn up. This contained an account of the best plots at the eight gardens—three in Westminster, two in Walworth, and one each in the Brixton, Kensington and Regent's Park districts, having a total of eighty-five plots. Many showed considerable improvement on last year, while the championship plot, in Elverton Street, was particularly good. Victoria Lady Templemore presented certificates to the winners or their relations—for eighteen of the men were at the Front—and received a basket of various vegetables, together with a bunch of Dahlias, grown on the best plot, from the holder himself. The proceedings closed with short speeches from Bishop Thornton, Miss Burn and others.

THE GARDEN.

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AUGUST 7, 1915.

NOTES OF THE WEEK.

Pathological Laboratory at Kew.—We understand that a laboratory for the exclusive investigation of problems in plant pathology has recently been equipped at Kew. The attention of the staff will be devoted primarily to the investigation of diseases of plants caused by fungi, both at home and in our Colonies.

Queries from Anonymous Correspondents.—During the last few months we have received a number of requests for information from anonymous correspondents. As stated in our rules, we cannot undertake to name plants or answer questions unless the full name and address of the sender are enclosed. This name is not necessarily for publication, any pseudonym that a reader desires being used for that purpose.

Rose Reve d'Or on a Stable Wall.—Rose Rêve d'Or might appropriately be called a double-event variety, for its pretty, deep yellow blooms are gorgeous in June, and it flowers again freely in the autumn. For growing on walls, pergolas and arches it is splendid, and can hardly be surpassed. It is such a fast-growing variety, very free and perfectly hardy. The illustration on this page shows a gable end, about twenty-four feet in height, clothed with this delightful Rose. The photograph was taken in Mr. George Prince's famous Rose garden at Longworth, near Oxford. The gable is facing east, and the Rose, which gives a double display of bloom every year, is about seven years old.

A Monograph on Sansevieria.—The *Kew Bulletin* No. 5, just published by H.M. Stationery Office, and obtainable through Messrs. Wyman and Sons, contains an extensive monograph by Mr. N. E. Brown on the genus *Sansevieria*. All the known species are included, a number being illustrated by drawings, and S. Dawei by two half-tone blocks.

A Hardy Veronica.—One of our most beautiful July flowering shrubs is *Veronica Traversii*, which appears to be about the most hardy species in cultivation. A native of New Zealand, it forms a dense, compact bush of rounded habit some 5 feet or rather more in height and fully as much in diameter. Travers' Speedwell is a useful specimen bush for the lawn of the suburban and villa garden, for beds in the pleasure grounds, and groups in the shrubbery border. During the winter as an evergreen bush it is attractive. The racemes of

flowers produce a picture of snowy white in July, the shade on closer examination being perhaps best described as starchy white.

Rose Queen.—This is one of the best of all Roses for bedding. It only asks for good cultivation, and it will bring forth its large, semi-double deep pink blooms in great profusion for a long period. It is a Hybrid Tea raised in America by Mr. E. G. Hill. We have seen it used

is generally called, is bound to have a great future when its claims are better known. It was first sent out by Lemoine of Nancy a year or two before the beginning of the war, so it has hardly had sufficient time to have made itself a name. It is quite as easy to grow as the old variety, and has much the same habit. Instead of single blooms, the branches are covered with little bunches of double flowers, which look like pure white glorified Scotch Roses. It is very sweet-scented.

Phacelia campanularia.—The dry spell between Chelsea and Holland House Shows has suited this magnificent annual exceedingly well. When all else was at a standstill or going back, this little plant grew and grew, and, from seed sown in the last week in April, flowers were produced in mid-June, and the plants increased in their rich, quiet beauty until a rough, wet, cold spell in the third week of July sent them home. The marbled grey-green, soft pale claret-edged foliage and the deep gentian blue, bell-shaped flowers give this small Chilean plant a distinctness all its own among half-hardy annuals. It revels in a hot, dry time if seed is sown in a well-prepared bed.

A Good Herbaceous Flower for Cutting.—One of the most useful perennial plants that we know for providing cut flowers is *Helenium pumilum magnificum*. It forms a neat, bushy plant about eighteen inches high, and from mid-July until the end of August produces its large yellow blossoms in profusion. As these are in branching sprays, with stout, erect stems, they are particularly easy to arrange in vases or bowls. It is also a splendid border plant, thriving in almost any reasonably good soil. Plants can be bought cheaply from any good firm that makes a speciality of herbaceous plants.

Rose Excelsa.—This beautiful Rambler Rose is doing splendidly again this year, the large trusses of bright crimson flowers providing a welcome splash of colour during the rainy days of July. Raised in America by Mr. M. H. Walsh, it

was first put into commerce in 1909, yet it is only now coming into general cultivation in this country. It is a wichuraiana hybrid, and, unlike Dorothy Perkins and Hiawatha, does not appear to be subject to mildew. The flowers also retain their colour until they drop; hence it is a far better variety than Crimson Rambler, the blooms of which turn an objectionable magenta hue with age.



ROSE REVE D'OR GROWING OVER THE END OF A STABLE IN BERKSHIRE.

in the orthodox way for ordinary bedding, and also as an edging to a kitchen garden walk, in which position it was most attractive and somewhat of a novelty. The variety has very pretty buds. In the National Rose Society's Official Catalogue it is said to be good under glass.

Philadelphus coronarius Virginal.—This beautiful double variety of the popular "Syringa," as this family of sweet-scented garden shrubs

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

How to Make Perfumes.—It is somewhat of a pleasure to me to know of the "great amusement" my letter on the above subject has furnished Mr. John Whitfield, F.C.S., according to his letter in *THE GARDEN* of July 24. He, regarding my recipe, gives Punch's advice to "M. H.": "Don't." But I think he will agree with me that Punch would express no such opinion unless he possessed very definite information. I will thus ask Mr. Whitfield to spare a few minutes to read my letter again, and if you will allow me, Mr. Editor, I will add a few remarks. Mr. Whitfield will notice on page 300, issue for June 19, that the Editor said that if any readers possessed recipes on the subjects enquired for by "M. H.," he would be very glad to publish them, and I, having the recipe for perfumes, sent it. As I said in my letter, "I have not actually tried it myself," but it was given me years ago by a Scotch friend who was no mean authority on the subject, and I fancy, thus, there must be more in it than Mr. Whitfield is willing to admit. Beeswax is, according to another friend, largely used in Italy for the purpose, and the perfume extracted with spirit. As I said in the letter, the recipe I offered was vague, but I am looking with interest for other readers to send on some definite data. Mr. Whitfield asks me to try some small experiments and report. These things, I regret, are impossible at present, as I am exceedingly busy. Other more leisured readers may perhaps try, but it is quite possible that failure may result, for the art of making perfumes is not learnt in a day. I sent the letter in case "M. H." should like to try it, not guaranteeing success in any way, for all I did was to pass on the information given to me. Mr. Whitfield goes on to advise "M. H." not to dabble in laboratory work. Very good advice indeed; but I think she will be able to carry out the few simple directions I gave without "dabbling in it." No mess will result if care is taken. The writer goes on to say that liquid perfumes cannot be made from the products of an English garden. To this I must confess I cannot agree. Of course, a South country garden is desirable, for then flowers will grow and bloom freely. Sweet-smelling plants should alone be cultivated, and some, of course, grow practically wild. Lists of plants with sweet-smelling leaves and flowers most people possess, so it is unnecessary to write a lot of names down here. But I may inform Mr. Whitfield that liquid perfumes can be, and have been, produced from the products of English gardens. Turning to my letter again, I may say that I intended to mention the question of expense. Spirit is expensive, and so makes the perfume expensive, and, of course, a great number of flowers have to be dealt with to get a little perfume. I do not possess any books containing very old recipes myself, but several have been referred to in *THE GARDEN*, and for my own part I cannot see why they should not act, with slight modifications. In the twentieth century we do not possess the old apparatus used by housewives long ago for the making

of perfumes, so, of course, we have to do the best we can with apparatus that we have. "M. H." will, of course, realise that home-made perfumes are never so good as those bought, for obvious reasons; but it is perfectly possible to make them if care be taken. — E. T. ELLIS, *Weetwood, Ecclesall, Sheffield.*

— I have read with interest the correspondence in *THE GARDEN* dealing with the making of per-



A TWO YEAR OLD PLANT OF VIBURNUM PLICATUM IN A HAMPSHIRE GARDEN.

fumes, &c. In reading the article on the subject by Mr. Whitfield in the issue for July 24, I see he says a liquid perfume cannot be made from the products of an English garden. I venture to say he is wrong, although I have no knowledge of pharmacy. I remember as a boy at school we were shown how to make scent by distilling it from the petals of flowers by means of glass flasks and tubing. The water was boiled in one flask, and the steam conducted by means of a tube to the bottom of another containing the petals. From this flask the scented steam was led through a condenser, which was a small tube inside a large one, with the space between filled with cold water, or, better still, fixed to a tap, and the water allowed to flow through. A vessel was put to catch the scent as it came from the condenser. — W. J. W.

Viburnum plicatum in Hampshire.—Mr. E. Beckett's note on this hardy shrub, page 336, issue July 10, is not too flattering. I quite agree that it is one of the very best of the whole family. It is good to "look on" at all periods of the year; it retains its foliage until the new leaves push off the old ones. The photograph enclosed shows how beautiful the foliage is, apart from its flowers, which are produced in a kind of double row the whole length of the branch; and in the autumn the rich colour tints the leaves take on render it equally effective. It is well worth a place in any garden; but this should not be found in an already possibly crowded shrubbery, but in an isolated position where it can be seen. The plant photographed is only two years old, and carried over seventy trusses of its creamy white flowers. — HERBERT E. MOLYNEUX.

The Extermination of Rare Native Plants.—

An important county association—to give it its full title, The Devonshire Association for the Advancement of Science, Literature and Art—has recently been holding its fifty-fourth annual meeting in Exeter, and among the variety of subjects discussed was that relating to the extermination of rare native plants, chiefly by children attending the County Council Schools. The

matter was referred to in the Report of the Botany Committee presented by Mr. W. P. Hiern, F.R.S., F.L.S., who is not only a well-known botanist resident in the county, but is also chairman of the Education Committee of the County Council. To promote an interest in the children in the products of Nature, which so closely surrounds them in the fertile fields and hedgerows of Devon, is one thing that should be encouraged, but the annihilation of rare species is another, and one that should be carefully watched. The Devon County Council has been, and is still, doing an excellent work in promoting by lectures and practical demonstrations the encouragement of an interest in practical gardening in the minds of the young boys of the villages, and the school staffs are inculcating a love for, and admiration of, the numberless beauties and usefulness of the vegetable kingdom; but a warning should be given to gather freely from our hedgerows and fields only such plants as are abundantly produced. — JOHN R. JACKSON.

A Beautiful Hardy Annual.—Under this heading on page 375 of last week's issue, I was pleased to see an appreciative note on *Collomia coccinea*. I have grown it

for years and advise other readers to sow some seed towards the end of September. — A. B. ESSEX.

The Norway Spruce as a Hedge Plant.—

Over thirty years ago it fell to my lot to convert a portion of a field into a pleasure ground, and the question of shelter had to be faced, especially from the west winds. Our plan was as follows: With a quantity of available subsoil, covered by the soil taken from the line of the intended walks, we formed a ridge with a moderate slope to a height of about three feet above the ground-level, and this border we planted with shrubs. These do not form a perfect shelter in a day, however, so from a neighbouring plantation requiring thinning we lifted young trees of Norway Spruce of a height of from 5 feet to 7 feet, and with these we formed a hedge round the outside of the shrubbery border. The trees succeeded admirably, and fulfilled their purpose for the time being. Since the time indicated I have not seen the Spruce thus utilised till, passing through the village of Echt, Aberdeenshire, recently, I came upon a series of pretty cottages having their gardens separated by hedges of Norway Spruce. The plants had been put in about a dozen years ago, while in a small state, at 6 inches or 8 inches apart, and have been clipped annually since, and they now form a bright evergreen hedge about four feet high. In favoured localities, where you may safely plant "a hedge of sorts," a Spruce hedge may seem a tame affair, but there are other localities where even the Beech hedge is not immune from the ravages of Jack Frost, and to those living under these conditions a Spruce hedge might make some appeal. — CHARLES COMFORT.

Lilium candidum.—It is impossible to dogmatise on the question of the treatment of *Lilium candidum*. The finest group of this lovely Lily I have ever seen was in a cottage garden, which was under my observation for upwards of twenty years. The soil was light and sandy, with a subsoil of pure sand and gravel. Here *L. candidum* flowered splendidly, and was absolutely free from disease. There was no lime in the soil, and I could only attribute its success to the weekly soaking of soapsuds and water from the tubs at the family washings. This soaking was regularly applied.—S. A.

Information about Goldfish.—In reply to "G. M.," goldfish are perfectly hardy, in the southern parts of this country at least. When once established, they will breed so fast that it will be found necessary to reduce them. They are not particular as to the pureness of the water, provided there is enough of it. I must, however, say that the better the water the more lively the fish. Feeding is not necessary, for they live upon the green algæ always present in the water. If one wants to feed them, there is nothing that I know of equal to bread. With regard to colour, I have handled hundreds, have had others under personal observation, and have no hesitation in saying they never change their colour. From a dozen fish (all gold, by the way) in the course of time some thousands were bred, some silver, some black, and every colour from gold to black; in fact, one might say no two could be found precisely alike.—S. G. S., *Newbury*.

The Kilmarnock Orchis.—I saw a handsome plant of this fine Orchis in the garden of Mr. James Davidson, Summerville, Maxwelltown, the other day. It was not only full of flower, but the many spikes were of great length, densely flowered, and of fine colour. This noble variety of *O. maculata* is to be met with under different names, *O. maculata superba* being, I suppose, its correct Latin title. I believe it is the same plant known sometimes as the Glasnevin variety, probably having been distributed from that home of all kinds of good things so carefully fostered by Sir F. W. Moore. Mr. A. D. Webster tells us that he was informed by the Rev. C. Wolley-Dod that it was found, or rather detected, by Miss Hope in a cottage garden at Kilmarnock. It was originally, I believe, discovered wild near there, and probably transferred to the cottage garden in question. It received the name of Miss Hope's Orchid, but is not much known by that name in Scotland, so far as I know. It is really considered to be a hybrid between *O. maculata* and *O. latifolia*. It is exceedingly handsome, of sturdy, erect habit, with stiff, thickly spotted leaves, spikes often more than a foot high, and fine purple flowers. It makes an excellent border plant, and at Summerville is grown in ordinary loam in the border. At Kirkconnel, Newabbey, it is also exceedingly well grown, and handsome spikes are to be seen there every year.—S. ARNOTT, *Dumfries*.

BULBS THAT OUGHT TO BE POTTED IN AUGUST.

BY THE REV. JOSEPH JACOB.

WHEN August is well in, the time has arrived when certain bulbs should be "potted up" with as little delay as possible. The longer I live the more impressed do I become with the value of early planting for anything that is to be forced by artificial means into a premature bloom. To plant late and then to try to get early January flowers is like burning the candle at both ends, and the inevitable result is disaster. The only exception that might be urged against this dictum is that of Roman Hyacinths, which are the most accommodating of bulbs in this respect, even November potting being less harmful for them than it would be for others. As, however, they are not gifted with the flowering property of the Monarch of the East (*Arum cornutum* or

scarlet-crimson umbels, which in sunlight look as if they were powdered with diamond dust, are the admiration of all who see them. *Sarniensis*, which is the original Guernsey Lily, is a vivid carmine, and, together with *coruscans major* and the before-mentioned *Fothergilli* and *F. elegans*, should be included in every first attempt with this fascinating genus. With this reminder about *Nerines*, which are so essentially August-to-be-bought plants, I pass on to say a little about those bulbs which are more usually associated with very early planting. Roman Hyacinths, if potted in August, may easily be had in bloom from November onwards. These may be followed by "prepared" Hyacinths, which with ordinary treatment can be had in flower about a week or ten days before the same varieties not so treated. *Albertine* (white), *L'Innocence* (white), *Garibaldi* (crimson), *Schotel* (light blue), *Lady Derby* (pink), *Oranje Boven* (ruddy apricot) and *Grand Matre* (medium blue) are among those that have been found to be the most responsive. If, however, these are heavily shaded and kept in a temperature of from 55°

to 60° until the flower-spike is well up, they may be had in full bloom in the middle of December. It should be noted that every year these prepared bulbs are becoming more reliable, as their preparation is becoming better understood. These should be obtained and potted as soon as possible.

Freesias are bulbs which suffer very considerably unless they can be started early. I try to get all mine in pots between August 10 and August 20; the earlier the better. We can rely upon the three old stock varieties, *Leichtlini*, *refracta* and *refracta alba*. The first is a pale primrose, the second white with a yellow blotch, and the third pure white. A new variety named *Purity* (pure white) has lately been introduced, for which great things are claimed; but I cannot speak of it as yet from personal experience. I hope it will be found to be more satisfactory than *Excelsior*, which is too dwarf for my liking and too weak in the stem. The new coloured varieties like *Conquest*, *Le Phare* and *Dainty* are all the more satisfactory if potted in August, but at present they are too expensive to grow on a large scale.

This leads up to the all-important question of what the garden-loving public are likely to buy this autumn in the way of bulbs. The day before these words were written, a partner in one of our large firms asked me how many bulbs they should order—a half? a third of what they usually order? or how many? No

one can tell. One would like, however, to express the hope that although everyone will want to save for something more important than the bulb order, yet that this will not be entirely withheld, but that some bulbs will be bought, either of cheaper varieties or a smaller quantity. There are a greater or a less number of employés in every firm who must live, war or no war. Now, if ever, a purchase will benefit both those who buy and those who sell. Everyone



CORNUS MACROPHYLLA AT COMBE WOOD. THIS IS OVER SEVENTEEN FEET HIGH.

Sauromatum guttatum), even they must be potted before they flower, and if late November or early December bloom is required, August potting is essential.

I am uncertain if the Editor intended me to mention *Nerines* or *Guernsey Lilies*. Their normal time of flowering in English greenhouses is September and October; hence we should get our supply in at once. *Nerine Fothergilli* and *Fothergilli elegans* are the most reliable. Their brilliant

realises that it is impossible to "carry on" as usual, and that "somehow" will be about as much as very many will be able to manage.

Beginning with Daffodils, no one can do better than stick to the old favourites Golden Spur, obvallaris and princeps. The last two mentioned are too often passed over; but good princeps are very charming, and obvallaris is as early as, or earlier than, Golden Spur and, if smaller, of exquisite shape. Henry Irving, potted or boxed in August, can comfortably be had in bloom by January 1, and with a like treatment the others will not be far behind. Queen Bess is the best of the short cups for early work, and it is one of the cheapest. Of the Polyanthus type there are the Paper-White, the double Roman and the rich yellow Soleil d'Or. Lastly, a few Jonquils might well be started as soon as the bulbs are procurable. They will come in about early February.

With regard to Tulips, unless bottom-heat and very deep shade or darkness can be given, my advice is, "Wait a little." They are not to be recommended for very early planting and forcing, except every convenience is at hand for providing these two necessities. Scarlet Duc van Thols are much the earliest. Far better, but later, is Vermilion Brilliant. Then, for a succession, Prince de Ligny and Prince of Austria. Of late years the last named grand Tulip has become so much lower in price that it is now within everybody's reach who can afford to buy at all.

A reminder may usefully be given about Lachenalias. A great factor in their successful cultivation is August potting. I know of no bulbs which are more benefited by very early planting

than these. True, they are, comparatively speaking, of much higher price than any I have mentioned, but there should be no difficulty in everyone growing their own from year to year if care is given after flowering. Pendula (red) may be had in bloom about Christmas; Nelsonii, Cawston Gem and luteola maculata in early February. I must not omit altogether the ordinary Hyacinths. Some few first or second sized bulbs might be bought, but as the miniature ones are much less money, I would advise giving them a trial. They are really young bulbs of ordinary varieties that if grown on for another year or two would then become first sized. Put three miniatures in a 5-inch pot or five in a 6-inch. Possibly this year, on account of diminished sales in Holland, they will be larger than usual. L'Innocence (white), Schotel (light blue), Grand Maître (pretty medium blue), General de Wet (pale pink), Lady Derby (pale rose) and Oranje Boven (ruddy apricot) are all excellent in their respective shades.

JAPANESE TREES AT COOMBE WOOD.

FEW deciduous trees have a greater value for ornamental planting than that elegant group of plants popularly known to gardeners as "Japanese Maples." These are foliage varieties of two species, *Acer palmatum* and

A. japonicum, introduced from the Far East by Messrs. Veitch in the early sixties, although

the type of *A. palmatum* found a place in English gardens as long ago as 1820. During the last fifty years many new and pretty forms have been introduced, distinguished by their elegantly dissected, richly coloured foliage and graceful habit. The finest specimen I have seen is at Coombe Wood, where many rare and interesting Maples from the East have been in cultivation. It was sent home from Japan in 1861 by John Gould Veitch, and in 1904 had attained a height of 25 feet with a diameter of 26 feet. In summer, when its dense crown of delicate greenery is fully developed, it is a very handsome tree. Mr. Wallis' excellent photograph brings out well the characteristic habit of the species.

Growing in close proximity to this Maple is a fine example of one of the Evergreen Oaks of Japan, *Quercus acuta*. It was planted in its present position shortly after its introduction by the Veitchian collector, Maries, in 1877. Although growing in an exposed situation on a cold clay soil, it has made vigorous growth and has attained a height of over twenty feet, and appears to be in perfect health. This species, which is perfectly hardy in cultivation, is now becoming more frequent in collections, being valued on account of its evergreen habit; but it is usually bushy in this country, and I do not know of any other specimens so large as the one here illustrated. The thick, leathery leaves resemble a Holly in general appearance, but they are duller in colour and entire in margin. The specimen of *Cornus macrophylla* is also an unusually fine one, being over seventeen feet high and twelve feet through. This species, which is the largest of all the hardy Cornels, is a very ornamental shrub when in flower, which was, unfortunately, not the case when the photograph was taken. Messrs. Veitch state that the Coombe Wood specimen flowers very freely in alternate seasons, the flower-heads being from 2½ inches to 5 inches across. In its native state *Cornus macrophylla* has a wide distribution, occurring from the North-west Himalayas eastward to China and Japan, and is usually 15 feet to 30 feet in height, but examples up to 50 feet high are on record. It is to be hoped that steps will be taken to preserve these interesting trees from destruction. A. BRUCE JACKSON.

THE ECONOMY OF ROCKWORK.

MY Villa Garden," reviewed in THE GARDEN for July 17 (page 356), and three other articles referring to rockwork, show that department of gardening very much to the front just now, despite war and the preoccupation of its many issues. But few publications give the rockery its economic place and value. The rockery appeals, and should appeal, because it is the method of culture giving the maximum result in plant cultivation on any given area of ground, especially an area incapable of ordinary



A LITTLE-KNOWN EVERGREEN OAK: QUERCUS ACUTA.

cultivation. Too much is usually made of the rockery itself and too little of the growth it accommodates. Any garden in this respect is on the same footing as a library. It is desirable to have the library well fitted in all respects, but the one essential is books. The essential of the garden is plants, and the place of greatest concentration the rockery. In this respect the great rockery at Kew always disappoints. It has been constructed as if stones were the essential of a rockery, not plants, though the collection of these there is far from despicable. At Edinburgh Botanic Gardens a rockery admirably constructed for the growth and display of plants has been removed in favour of one in which, as at Kew, stones appear an essential, instead of plants.

In the garden, as in the library, the pleasure is very much in collecting. By eliminating the inferior and preserving only the choice, both the library and garden may accrue enormous value in very limited space. It is here that the rockery scores and enables the villa garden to vie with the many-acred domain, where plants are few in variety but immense in number and display. But to give the small garden its superiority through the rockery, the Kew model of rockwork must not be accepted. Whatever the material, it must be adapted to a numerous colony of plants and as secondary to the growth. It must also be accessible both for working and observation. This may be secured in various ways, but the most essential is flights of steps at an easy gradient intersecting the rockery in various directions. These should be of the same material as the rockery, and built simply with soil. Numerous plants will then naturalise themselves on such steps and give a pleasing, natural effect. The objection that such steps are insecure only applies to bad construction. Stones, brick burrs or other material should always be carefully ledged one on another from the bottom upwards.

I have just constructed a rockery in a garden similar to that described in "My Villa Garden." The garden slopes steeply to the west, and this rockery is made at the upper end on what was a grass bank. Though only an area of about twenty feet each way, it has a winding flight of stone steps intersecting it, and will contain, when fully planted, about two hundred and fifty varieties of alpine. Of course, to concentrate that number, many minute species will be selected and rampant growth excluded. Method as to this must be observed, just as there must be method in the library. A genus should be represented by all suitable varieties, as nearly as possible. Campanulas thus could only find a place in the *recherché* rockery by dwarf varieties such as *carpatica*. Even such charming subjects as *Aubrietias* would require to be very limited as to space if the rockery is to be of the best. The rockery should always provide for plants requiring a dry wall-like surface, and those of more generous habits as well. I saw a rockery constructed lately at considerable expense



A FINE SPECIMEN OF JAPANESE MAPLE, *ACER PALMATUM*, AT COOMBE WOOD.

which could only be termed such by courtesy. A long bank some 15 feet deep was covered with stones showing perfect uniformity from end to end. Such is neither pleasing nor economical. KURSTCOT.

[While we agree with "Kurstcot" as to the economy of the rock garden, we do not think his criticism of the newly-constructed portions of the rockery at Kew justified. The plants there are scarcely established yet.—ED.]

CROCUSES OF AUTUMN.

UNLIKE most of the other bulbous plants that gladden our hearts in the early months of the year, the genus *Crocus* contains a number of species that give us their curious, balloon-shaped blossoms during the shortening and oft-times dull days of autumn. How far the general association of the *Crocus* with the spring months is responsible for the autumn-flowering kinds receiving such scant consideration as they do from the average gardener is difficult to say; but I think it is to some extent responsible. Or can it be that our artistic tastes have been dulled by the floral pageant of summer and that these little gems of autumn possess no charms for the multitude of garden-lovers? Although not suitable for every locality and position, some at least of them could, with a little trouble, be induced to flower well, if not very freely, in the majority of gardens. There is no doubt they appreciate soil of rather light yet rich texture, and perfect

drainage is essential. For this reason they are charming little plants for forming colonies in nooks in the rock garden, or for planting in sunny spots towards the front of the shrubbery where the corms can be left undisturbed year after year.

These autumn-flowering *Crocuses* are, I find, so often confused with the *Colchicums* and *Sternbergias*—similar plants in appearance, but with a botanical difference—that it is necessary to state here that true *Crocuses* are meant.

As early in August as the corms can be obtained they ought to be planted, and it is best, for most purposes, to form irregular colonies of one kind, the size of these depending largely on the surroundings and the space available. Six inches apart is a good distance for the corms, and shallow planting only must be adopted. Much of the non-flowering of spring as well as of autumn *Crocuses* is due to too deep planting, a disappointment for which the nurseryman is too often wrongly blamed. An inch thickness of soil over the corms of autumn *Crocuses* is ample, though in very sandy or loose soil an extra half an inch is allowable.

Probably the best known of the autumn kinds, although by no means the easiest to establish, is the Saffron *Crocus* (*Crocus sativus*), a plant that was at one time grown largely in the Saffron Walden district of Essex for the dye it yielded. This was secured from the dried orange-scarlet stigmata of the flower, and the growing of this species for the purpose named is, I believe, still an industry, though probably a dying one, in some parts of the Continent. The blossoms are of rather large

size, purplish lilac in colour and feathered with violet. It does not flower at all well until thoroughly established. The prettiest and easiest of all to grow is, I think, the one known as *speciosus*. This is a strong, comparatively tall-growing plant, and never looks so charming as when planted in grass, or in the rock garden, or bordering an old pathway, where its large blue flowers make a welcome change from the yellow that predominates in our gardens in autumn. *Zonatus* is a rather delicate-looking flower of rose lilac hue, with an orange yellow zone of spots on the inner surface of the segments. It is essentially a flower for a sunny, sheltered nook in the rock garden, where

AN EAST COAST GARDEN

"Mine are the wild sea-swallows, the sparrowhawk that towers,
The Mallow and the Poppy, and all cliff-loving flowers."

THE other day, when staying in a small village on the East Coast, I was taken by friends to see one of the most fascinating gardens on a small scale that I have ever come across. I could not help thinking how satisfactory it was that the charm of a garden depends so

brilliant as a rainbow. Each flower seems to glow with a special depth and vividness of colouring, owing, no doubt, to the sea-salt in the air. Nowhere else can such bright crimson Poppies be seen as on the sea-washed cliffs of Poppyland.

Passing round the house, against which Honey-suckle, Roses and Rosemary climb, each vying which shall smell the sweetest, the rock garden is reached, and a small gate in the thicket of trees leads through a sunk path in the meadow to the sea. This sunk path, bordered by Grasses and wild flowers, is regarded with a certain amount of awe by the village children, as here, tradition says, walks the spirit of the brave young nurse

who long ago lost her life on the beach below in rescuing her young charges from the waves.

The long strip of kitchen garden is adorned with a patch of Shirley Poppies at one end, and bluest of blue Cornflowers at the other, and this opens upon a particularly sheltered nook, protected on three sides by banks and hedges; this is the herb garden. On a hot summer's day it is here the bees and butterflies love to fly about in the sun, the blue sky above them, glimpses of sea, no less blue, shining through the hedge. The air is full of an aromatic fragrance, drawn by the heat from each dainty plant.

"Excellent Herbs had our fathers
of old,
Excellent Herbs to heal their
pain."

What a joy to find them in a modern garden! In colour the herb garden is chiefly a harmony of soft greens and mauves, though the Bergamot has a handsome crimson flower, and the blooms of the Valerian (the Spikenard of Scripture) are white or red. Some of the plants grow low, the Golden, Lemon and Creeping Thymes, which some say should always be planted round a sundial, the moss-like Camomile, and the Pennyroyal, once used

to purify stagnant water. Other herbs, like Horehound, Angelica and Catmint, are fine, effective plants. There must be few housewives nowadays who are able to enjoy the old-time pleasure of candying their own Angelica! For this herb garden is grown for use as well as beauty, and the cook enjoys a run into the fresh air to gather a sprig of Sweet Marjoram, Savory, Thyme, or Chives which will give a piquancy to her soups and salads. But the two herbs most attractive to me were the Hyssop, growing in Broom-like shape (no wonder it was at one time used to sweep the altars in Holy Church), and the Vervain, which clergymen always linger over. It is the most sacred herb that grows.

"Hallowed be thou Vervain
As thou growest on the ground,
For in the Mount of Calvary
There thou wast first found."

Even now some of the French peasants breathe a prayer as they pick the spiky purple blooms.

The "look out," raised high above the herb garden, offers a wide view over meadow and North Sea. Our hostess told us of strange warlike scenes being witnessed from here at the close of last summer. One Sunday evening especially



FLOWER BORDERS IN AN EAST COAST GARDEN.

boisterous winds cannot so easily sully its refined beauty, although the plant itself is hardy enough in the open. Once established, it is not likely to be lost, as it increases rapidly. Of somewhat similar colour, but having rather larger flowers, is *longiflorus* (or *odoratus*, as it is sometimes known). Like *zonatus*, it is a *Crocus* for the sheltered rock garden nook, although I have seen it flowering moderately well in more exposed situations. *Asturicus* is a charming *Crocus*, and one that does well in many gardens, its delightful, though somewhat variable flowers providing a delicate mist-like patch of pale or purplish mauve in the autumn garden. In *pulchellus* we have a *Crocus* of quiet yet, in some ways, distinct beauty, the white anthers imparting a striking note to the pale lavender of the petaloid segments. *Iridiflorus* or *byzantinus* has a unique appearance, inasmuch as the flowers resemble those of a small *Iris*, the three inner segments being small, pale lilac in colour and pointed, while the large outer segments are of deeper hues. In addition to the above there are a number of species and varieties, many of them very beautiful indeed, that flower in the autumn; but at present they are expensive. Those mentioned are reasonable in price.

H.

little on its extent. All that could be desired in the way of variety and beauty was to be found on this windswept two acres.

Perched high on a hill, just out of the village, almost under the shadow of a fine old perpendicular church, this delightful garden has every advantage that surroundings can give. Walking along the road, visitors notice a circle of trees in striking contrast to the rest of the bare open cliff. Black Poplars, Sycamores and Wych Elms, just the trees that can best stand the wind and salt sea breezes, were planted as a living screen many years ago. A glance through the white, seven-barred gate shows a glimpse of the old gabled, lattice-windowed house, standing like some beneficent spider within its leafy web.

The peculiarity of this garden is the number of hedges and banks, which have been put up from time to time to give still more protection from the searching north-east winds. In early spring these banks are yellow with Daffodils and Primroses, and the little copse under the trees is carpeted first with Crocuses, and then with delicate wild Hyacinths, blue and pink. A smooth green lawn stretches along the south-east frontage of the house; then come the herbaceous borders,

lingered in her memory. It was so calm and peaceful in the garden, yet overhead an aeroplane was rapidly patrolling the coast, and, looking out to sea, three destroyers could be seen hovering round a good-sized trading vessel, which was eventually towed off to Yarmouth, a prize of war, the crew being taken prisoners. Such sights must have seemed to bring the enemy very close. and I was glad, but almost surprised, not to find a carefully hollowed-out cave in some secluded corner, a "dug-out" in which to shelter, if necessary, being a somewhat disturbing feature this year of many an East Coast garden.

There are other gardens along the cliff, large and famous, and full of beauty; but I am sure that many would agree with me in thinking that this quaint demesne, with its trees and its herbs, comes second to none in individuality and charm.

DORA BARDSWELL.

VEGETABLES FOR SOWING DURING AUGUST.

UNDER normal conditions the end of the third week in August marks the finish of the sowing season for vegetables. In a great many gardens this work is brought to a conclusion much earlier, partly through lack of knowledge and partly indifference on the part of owner and gardener. At ordinary times this is not very serious, but now that we are rightly being urged to grow as much wholesome food as possible, and to economise with existing supplies, it is the duty of everyone to adopt unusual or little-known measures with those ends in view. The amount of success attained with the late sowings that I will advocate will depend to a large extent on the season and, in lesser degree, the kind of soil one has to contend with and the amount of care that can be given to the crops. Even with highly unfavourable circumstances partial and useful crops will be obtained, and it is impossible to place too strongly before those who have ground and seed available the desirability of attempting something at least on the lines indicated.

Potatoes.—These, our most important root crop, have received considerable attention from the Board of Agriculture during the last few weeks. It is far more profitable to plant them late than to throw them away or feed them to pigs. Even at this date, if the tubers are sound, they should be planted, with every likelihood of yielding good crops for use at the end of October or early November. Where old tubers are not available I would not hesitate to plant new ones, selecting these from the most matured plants.

Carrots.—Next to Potatoes these are the most useful vegetable to sow now for winter use. A well-drained plot of moderately rich and thoroughly tilled ground should form the seed-bed, and a stump-rooted Carrot ought to be chosen, as this type matures more quickly than the longer ones. Young roots from this sowing will be available for use from the end of October onwards.

Turnips.—After the outbreak of war last year I made a sowing of Early Snowball, and the result was an excellent crop for use during the winter. Thin sowing, in rows a foot apart, and early thinning, so that the plants stand 9 inches asunder, are essential.

Beetroot.—This is a rather risky crop to sow now, yet if seed of a Turnip-rooted variety is available, and a warm, well-drained piece of ground is vacant, it is worth trying.

Radishes.—Seed of French Breakfast variety, scattered thinly and lightly covered with soil, will yield some useful salad in a very short time.

Lettuces.—These used to be sown between the newly planted Strawberries, or else in a separate bed, and the seedlings transplanted there later on. They were cleared in May, just when the Strawberries were commencing to flower. Hardy Hammersmith for a Cabbage variety and Black-seeded Bath Cos for an erect sort were the varieties chosen. Sow end of August.

Onions.—The present is a good time to sow seeds of winter or spring Onions. These have to stand through the winter, and are either pulled and used green at the end of March or during April, or transplanted at the end of October for growing on into large bulbs for use in July of

depend on the variety. Harbinger, which, I think, is the best and earliest of all, is a rather small Cabbage, and needs but 18 inches between the rows and a foot between the plants.

F. W. H.

A BEAUTIFUL ROCK GARDEN PLANT: *SILENE HOOKERI*.

THIS handsome species is a native of California, and was first flowered in this country by the late Mr. Thompson of Ipswich. For some reason the plant was soon lost, but a few years ago it was reintroduced by Mr. Carl Purdy, and now is fairly plentiful in gardens.

S. Hookeri is one of a small group, all natives of California and the Western United States, remarkable for their brilliantly coloured flowers. Others of this group are the scarlet *S. laciniata*, of which the best form is *Purpusii*, and *S. californica*, also with scarlet flowers. The plant illustrated is usually found growing on wooded hillsides, and is described as having both white and rose-coloured flowers. It is of tufted habit, with lax stems only a few inches long, each bearing a single large flower. The leaves are about two inches long, and the whole plant is softly pubescent or almost woolly. The rose-coloured or pink



SILENE HOOKERI, [A DWARF SPECIES WITH ROSE-PINK FLOWERS.]

next year. As a catch crop the growing of these Onions for salad is one of the most profitable for market gardeners. A system that I used to adopt largely was to sow a row between every two rows of newly planted Strawberries. The Onions were cleared in April, and did not do the slightest harm to the Strawberries.

Spring Cabbages.—From August 1 to August 12 is the period for sowing seeds of this important crop. They are scattered thinly in rows a foot apart, and when a few inches high transplanted to their permanent positions. The distance apart will

flowers are over two inches across, each petal being four cleft, while the under side of the flower is of a light buff shade. In a sheltered position, planted in peaty soil, it survived the last mild winter, and during June it flowered very freely. As it sets seeds freely, these afford a ready means of increase. These may be sown as soon as ripe, in which case plants may be obtained ready for planting out in the following spring, or the seeds may be kept till the spring before sowing. Light, sandy, well drained soil is essential.

W. I.

LATE TRANSPLANTING.

ITS EFFECTS ON PERENNIALS.

IT may be of interest to readers of THE GARDEN to hear about some of the effects observed up to the moment of writing concerning certain perennials which were unavoidably planted in very late March and well on in April, and not weeks earlier as they should have been. From the planting-time onwards there has been much to observe about them, and careful notes have been kept.

The perennials planted were *Alyssum saxatile*, *Anchusas*, *Achillea*, *Ptarmica*, *Doronicums*, *Erigeron speciosum superbum*, *Campanula persicifolia*, *Polemonium caruleum*, *Inulas*, *Lupinus polyphyllus*, *Pyrethrums*, *Chrysanthemum maximum*, *Trollius*, *Verbascums*, *Valerians*, *Aconitum bicolor*, and one or two others. They were put into a couple of borders, one of which I expected we should fill with annuals; but as the family did not want so many annuals this year, we filled it with perennials pretty well as late on as we dared.

In April and May we had to water generously, for the plants felt the heat and their removal, which was only natural, seeing how late we had to put them in. They soon, however, took hold of their new quarters, and we have watched and tended them anxiously enough.

I have taken various notes from April to the present time (mid-July), and the first thing which we could not help observing was the fact that the flowering period altered and became much earlier. I have not calculated how much, because, of course, to do such a thing would be difficult, seeing that the seasons vary each year to some extent. But there was a really big difference—that no one could deny—and we got flowers in consequence much earlier. As a matter of fact, we are continuing to get earlier flowers up to the time of writing.

Of course, we think nothing of early *Doronicums*, for sometimes they are in bloom in late March—just starting—if the season is very mild. In our border, planted late, many of them shot up and flowered at once. These are now over. But certain of them which were planted late, showing merely leaf only, did not begin to flower till late June—I think it was somewhere about June 24—and are now over.

In an extensive nursery near here I was able to observe the effects of late transplanting and division of *Pyrethrums* (single and double), as well as the effects of merely late transplanting in the garden here. In both cases the plants came into bloom *much* earlier, the flower-spikes were not so tall, there were fewer of them, and the flowers themselves were small and not of excellent quality. Here we do not expect *Pyrethrums* before mid-June, but we got them very early in the month.

Lupines also began much earlier than usual, and in consequence were too much "over" to take to a flower service which is always held every year on the second Sunday in July. Last year many fine spikes were cut for this purpose. This year, also, there is only prospect of a very small second crop from the plants planted late.

The *Polemonium* forms another interesting case. Planted late, this subject gave a few stray flowers in early May. Then there was a gap of several weeks, and in late June and from then to the present time it has thrown up freely some fine flowers.

With *Anchusas*, again, we noted earlier flowering; and the same may be said of *Erigerons*, only in

The *Achillea* and the *Campanula* did *not* flower earlier. They are only just out now. The *Achillea* felt the very hot spell we had here the last week in April, in spite of careful watering.

With regard to *Chrysanthemum maximum*, I had an experience last year when we planted a few roots very late to fill in a gap, and this bids fair to be repeated this year also, for the plants have been showing buds for some time. Instead of flowering in late August and throughout September, as they normally should, they started to flower in late July, and were over by the end of August. (I think they will not begin till August 1 this year, however.)

I think now I have put down jottings on most of the plants grown in our late-planted border, I will sum up before closing. The greatest point is that here late transplanting has meant the earlier flowering of all the plants tried, except one or two. Next to this comes the question of quality and quantity. The *Anchusas* and *Valerians* have been, and are still, covered with bloom, though the first is getting over. The late-planted *Lupines* have not been remarkably prolific, and some have dropped their buds badly. *Chrysanthemum maximum* will be covered with bloom later. But with these exceptions we must admit that late transplanting has greatly impaired both the quality and quantity of the bloom so far obtained, and has in many of the cases kept the plants much dwarfer in stature, which means it has weakened them. Succession of bloom we shall, of course, have on many of them; but we shall cut the flowers off as soon as they are open from our late border to avoid weakening the plants further. Of course, the experiment has been interesting, but it is not worth repeating. Now that the effects of late transplanting are known, I hope others may be warned not to plant late, for it does not pay, and this is my reason for writing so lengthy a contribution on the subject.

E. T. ELLIS.

Weetwood, Ecclesall, Sheffield.



THE TRUE IRIS FILIFOLIA SHOWN IN LONDON A FEW WEEKS AGO BY MR. W. R. DYKES.

this case the plants did not reach the expected height. The *Inulas*, planted later, were very dwarf, and showed buds very soon after they were planted; they are now over. The *Verbascums* behaved similarly to the *Erigerons*, only, of course, in the case of plants (necessarily small) of *Verbascums*, only a single main spike was given, supplemented with one or two very small ones. This main spike on each plant did not reach the height usual for *Verbascums*.

The *Trollius* in our late-planted border came out very early, and so did the *Aconitum*. This last, however, is extremely strong and healthy, and is throwing up several spikes of no mean size, which will open shortly.

in cultivation, nor is it widely distributed in Nature, being only found in a few scattered localities in Southern Spain and on the north coast of Africa. It has long been confused with an early flowering form of *Iris Xiphium*, which still appears in some catalogues under the name of *filifolia*. But it is easy to distinguish the true plant, for it has a linear perianth tube half an inch or more in length between the ovary and the base of the segments of the flower, while no form of *I. Xiphium* has any such tube. The colour is a rich red purple, with a broad central patch of yellow, surrounded by a more or less conspicuous halo of blue where the yellow is merged in the purple.

A RARE AND BEAUTIFUL IRIS

The true *Iris filifolia*, as described by Boissier, is still rarely seen

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Early Muscat Grapes.—When only a few bunches are left in the house, it is wise to cut them and place them in bottles in the fruit-room. The Vines may then be syringed with an insecticide to destroy any pests which may be present. Give the border a thorough soaking of clear water, which can be followed with diluted liquid manure.

Late Muscat Grapes.—The bunches must be exposed to the light in order to ripen them perfectly. Keep lateral growths regularly removed before they become too large. Use fire-heat sparingly at all times. When the weather is quite warm, fire-heat may be dispensed with; but during these periods the damping of the floors must not be done to excess.

Other Late Grapes.—Lady Downe's Seedling, Gros Colmar and Lady Hutt require a long season to ripen their bunches perfectly, and should be grown, if possible, in a house by themselves. The latter variety is inferior to Muscat of Alexandria in every way, and should not be grown extensively. During the process of ripening, late Grapes require plenty of air, and the ventilators must be open day and night, more or less, according to outside conditions.

Plants Under Glass.

Retarded Bulbs for Autumn and Winter Flowering.—*Lilium speciosum rubrum*, *L. s. album* and *L. longiflorum* are most useful subjects for decorative purposes during the autumn and winter. The bulbs may be potted at intervals of a fortnight or three weeks to keep up a continuous display. An occasional light fumigation with a nicotine compound will keep them free from aphids.

Roman Hyacinths.—These may now be procured and potted, or planted in boxes for cutting. Early Narcissi may also be potted now. When potted, plunge them in ashes in a cold frame.

Mignonette.—For flowering in the spring months a sowing may be made now in 3-inch pots. The plants will require to be potted into 5-inch pots to flower. Further sowings may be made at intervals to keep up a successional supply of this delightfully fragrant flower.

The Heating Apparatus.—All boilers and hot-water pipes should be thoroughly overhauled before the cold nights set in, as it is now possible for fire-heat to be dispensed with for a week or two.

The Flower Garden.

Gladioli.—The flower-spikes will require the support of a neat stake. Plenty of water must be afforded during long spells of drought, and, where possible, a mulch of some suitable material will be appreciated by the plants.

Narcissi.—Where these are grown in large clumps, it is necessary to lift them when they show signs of weakening. This work may be done now, as the foliage has naturally decayed. When lifted, select the large bulbs for replanting again in their flowering quarters; but before this is done, the ground must be thoroughly prepared by deep cultivation and manuring. If necessary, the smaller bulbs may be planted in the reserve garden, where they will eventually attain sufficient strength for flowering.

The Rock Garden.—The propagation of various plants must be attended to after flowering. Campanulas are easily propagated either from cuttings or seed. There are many beautiful varieties flowering at the present time which are suitable for small rock gardens and probably the most beautiful of all is the variety Warley. Dianthus may be increased by cuttings inserted in sandy soil in a frame or hand-light. Geums may be propagated from seed sown now in boxes and placed in a cold frame. Bulbs planted in rockeries require to be overhauled, replanting those which are becoming too thick. Special attention must be paid to the watering of rock gardens during long periods of dry weather, or many valuable plants may be lost.

The Hardy Fruit Garden.

Outdoor Vines.—Now that the berries are swelling, the roots must be well supplied with water.

Stimulants, such as liquid manure and some approved fertiliser, must also be given till the Grapes are nearly ripe. Keep all lateral growth removed as it appears, thus diverting all the energy of the Vines to the maturing of the fruit. Mildew is almost certain to appear on the berries, but this may be kept in check by dusting flowers of sulphur about them.

Black Currants.—When the fruits have all been cleared, attention must be given to the ripening of the young growths. First cut away all the old fruiting wood; then thin out the young growths so that light and air can penetrate right through the bushes.

The Kitchen Garden.

French Beans.—If a heated pit is available, a good sowing of these should be made towards the end of the month. A little fire-heat is necessary during the dull, damp days of late autumn to dispel moisture. If the ground is prepared now, it will be in proper condition when the time for sowing arrives.

Cucumbers.—A batch of plants may be raised now for fruiting in the late autumn and winter. For this purpose the young plants must be grown as sturdily as possible, therefore keep them near the glass in a temperature of 65° or 70°. The plants growing in cold frames must be gone over once a week for the removal of surplus growths.

Mushrooms.—The materials for a bed for producing Mushrooms in the autumn may be prepared. The horse-manure must be put in a dry place as it is collected, and turned every two or three days. If a proper Mushroom-house is not available, a bed may be made in a shed and covered with straw when spawned. I have grown Mushrooms successfully in a barn right to the end of the year.

Runner Beans.—Plenty of water must be given the plants now that they are fruiting. Liquid manure from the farmyard is an excellent stimulant, as also is soot, which must be dusted between the plants previous to watering. When the plants have reached the tops of the stakes, the points of the growths may be pinched out.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

Plants Under Glass.

Violets.—Many growers get their stock by splitting up the plants which have finished flowering during May. This is certainly an easy method, but far better results are obtained by propagating from runners put in this month. If a few old plants were retained in the reserve garden, sufficient stock can be got from these without having to take any from the young plants. The frame to receive them should be made up to within 8 inches of the glass with a good mixture of turf and leaf-soil, and covered with quite an inch of sand. If kept air-tight and shaded for three weeks, the runners will be found to root freely. After they are rooted, the syringe must be used freely to prevent red spider from attacking them.

Chrysanthemums.—Buds can now be taken where flowers are needed in October and onwards. Laterals must be kept pinched off to divert all the energy to the growths with buds forming. Top-dressings should be slight, but rich in composition, and applied as soon as it can be seen that the previous application has been assimilated and taken possession of by the roots. Weeds must not be allowed to grow in the pots.

Bulbs.—Pot up all bulbs as soon as they are received, so as to get them well rooted before attempting to force them. With the exception of Freesias, they should all be covered by a depth of 4 inches of ashes after potting. Roman Hyacinths, Freesias and Paper-white Narcissi should all be on the market by this date.

The Kitchen Garden.

Carrots.—If small Carrots are desired for late use, a sowing can still be made of a short-rooted variety. Unlike the earlier sowings, there

is more chance of this late crop escaping the dreaded fly.

Celery.—The early plants should be earthed up as far as the state of growth will permit. An occasional dusting of soot will keep the Celery fly in check; and if earthworms are very troublesome, a slight dusting of Vaporite in the bottom of the trench will help to remove them.

Endive.—A good sowing should now be made for use in the late autumn or early winter. The Round-leaved Batavian is the most reliable and hardy variety to grow.

Corn Salad is another subject which should be grown largely by those who have not much frame accommodation for other salads. Sow in shallow drills a foot apart.

Vegetable Marrows should be cut regularly to encourage the formation of more young fruits. If the Marrows are permitted to mature, the plants will not continue to produce any great number of young fruits.

Tomatoes growing outdoors must now be stopped, to try to encourage the fruit already formed to swell and ripen. Expose them to all sunshine by tying the foliage aside.

Winter Onions.—The ground should be prepared in advance for these, as it is better for the soil to be in a firm, settled condition before sowing.

The Flower Garden.

The Herbaceous Border.—Frequent attention must be directed to this portion of the garden to keep it as attractive as possible by removing dead and withered flowers. Seed-pods of such plants as Delphiniums must be cut off and the flowered stems of Papavers and *Spiraea Aruncus* taken away, as they give the border an untidy appearance while they remain. Michaelmas Daisies and other autumn-flowering subjects will require additional ties to stakes as they develop.

Phlox decussata.—To obtain free-flowering, vigorous plants, herbaceous Phloxes should be propagated from cuttings during this month. If young growths are selected from the base of the plants or from the flowering stems and dibbled closely in some sandy soil in an air-tight and shaded frame, they will root within a month and make useful plants for next season.

Propagation Preparations.—Frames, boxes and soil must be got ready for cuttings of several of the very tender bedding plants, which will soon have to be taken.

Fruit Under Glass.

Early Vinery.—Unless red spider is still in existence, slightly less humid conditions should now prevail to assist in the maturing of the wood and foliage. This, however, must not be unduly hastened by excessively dry treatment. If any extension of the border is to be made either outside or inside, this is an ideal time to do it, as the roots will get nicely started in the new soil before the Vines go to rest for the winter.

Other Vineries are likely to be troubled by wasps from now until the first severe autumn frost. These, however, are not difficult to exclude if there is plenty of material available for the purpose. Tiffany or gauze may be used, but the special wasp netting is best for the purpose, as it permits a free circulation of air through the ventilators. The system of ventilation must decide whether the netting should be fixed outdoors or inside the vineries.

Late Grapes.—Fruit which is to be kept late in the winter should be looked over to see if there is any crowding of the berries. To keep late Grapes successfully, it is important that each berry has ample room for development.

The Hardy Fruit Garden.

Fruit Nets should not be allowed to remain on bushes or trees after the fruit has been gathered. Apart from injuring the nets, many good growths are sometimes spoilt by this neglect.

Late Gooseberries, also Morello Cherries growing on north walls, which are required to supply fruit as late as possible, should have all the growths required for extension neatly tied into position before putting on the nets.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

SEASONABLE NOTES ON CHRYSANTHEMUMS.

"Taking" Buds.—From the first week in August till the middle of September cultivators who require large blooms for exhibition or for grouping in greenhouses and conservatories will be very busy "taking" or securing the best buds for the purpose. Complaints have reached me of persistent bud formation in the case of certain varieties in various parts of the country, and where this occurs it is often rather difficult to get the right bud at the right time. In the case of those varieties showing buds persistently, I find it best to take the buds that appear about the middle of August. A few days earlier or later does not matter. Usually, if a bud forms late in July, it would be useless if taken. The next bud forms about a fortnight later, rather sooner than a terminal bud does, following the removal of a crown bud. It is a fact that the buds taken between August 10 and August 25 generally develop into very clean, well formed and highly coloured blooms, but the latter are rather smaller.

"Taking" Crown Buds.—A crown bud is one which forms and causes a number of young shoots to grow below it. If left untouched, these young shoots would grow apace and soon overcome the bud, and while the latter dwindled in size, the shoots would grow rapidly and, in due course, bear clusters of buds, termed "terminal buds." The removal of the shoots results in the rapid swelling of the crown bud and, in proportion, of the top main leaves and stem.

It is unwise, however, to pinch off all the surrounding shoots at one operation. We will presume that, after the cultivator has pinched off shoots in the axils of the leaves from time to time, there will now remain from three to seven small shoots to be removed. The bud is taken by pinching off these small shoots at the rate of one every day until all are removed.

Robbing the Crown Buds.—Some cultivators leave one shoot to grow on for a time, so as to retard a forward bud. The shoot selected is generally the one next to the bud. I do not favour such a course, as the bud is seriously crippled, being checked too much and robbed unduly by the shoot. The best plan is to gradually pinch off all the buds as they become large enough to handle and to be removed without in any way damaging the main stem. If the latter is peeled, punctured, or any other kind of incised wound is made in it, probably the bud will develop unevenly, one side or one half possessing shorter flower petals than the other half.

When the buds are taken and it is found that some are too forward, remove the plants to a cooler position, but not one that is shaded, as all the light possible must reach both leaves and buds. Others that may not be forward enough should be hastened by a somewhat fuller exposure of the plants to the sunshine and air. This can be done by spacing out the plants a little more, and also by giving them the following dose of nitrate of soda: One teaspoonful dissolved in two gallons of rain-water, or, if the rain-water cannot be obtained, in tank or pump water in which ordinary washing soda has been dissolved at the rate of 10z. to three gallons, and then allowed to stand for twenty-four hours before being used.

I would here warn inexperienced cultivators not to be tempted to use, at this stage, more

nitrate of soda than is specified. I remember one cultivator who, to hasten on some backward buds, gave the plants several rather strong doses of nitrate, with the result that the flower-stems were nearly two feet long and the blooms useless. Judiciously used, the nitrate has a beneficial effect, especially in the case of buds with rather hard stems, as then the latter swell freely as well as the flower-bud.

Feeding.—Having removed the shoots and taken the bud, watch the latter closely, and as soon as it can be seen that the bud has begun to swell, recommence the feeding of the plant. To be successful, it is well to go to the trouble of picking out the plants and not to treat all alike.

If soot-water is used, it must be very clear, else the pores of the soil will get clogged. Liquid manure from tanks or from tubs of water in which manure in bags has been placed should also be used in a clear state after an initial soaking of at least two days and several violent movements of the manure bag to and fro in the water. When using artificial manures, it is advisable to give water in a clear state for two days previously. Do not exceed the strength recommended by the vendors of the chemical manures.

The rich top-dressing material should be put on as usual while the liquid food is being applied. As the time is short between the taking of the bud and the full development of the bloom, clear water should only be given in the intervals between applying liquid and concentrated manures as referred to above.

Syringing.—On fine days syringing the leaves and buds will be beneficial if done about four o'clock in the afternoon. But it is not wise to syringe on dull days or in cool weather. Keep the foliage and buds free from insects, and especially guard against earwigs, as they eat the buds, also the stems of the buds.

AVON.

SUMMER PRUNING OF HARDY FRUIT.

LONG since recognised as an operation of prime importance in the case of wall or similarly trained fruit, there is yet some want of appreciation of the usefulness of such work as summer pruning where fruit in the open ground is concerned. Many growers of small areas of fruit, though they do essay to summer prune, are often at fault in their method of putting the operation into effect. Some prune too early, and cause the trees to waste their vigour in secondary growth of a comparatively weak and useless character; others defeat their object in a similar way by pruning too severely, even going so far as to cut off a good part of every shoot; while others fail to discriminate in their treatment of growths of varying vigour. Such errors as these have in no small degree contributed to the disheartening appearances many small plots of bush Apples, and other fruits, present at this time.

Summer pruning will not in itself cause an unfruitful tree to become fruitful, but it will contribute to symmetrical development and the economical use of space and plant vigour.

Apples and Other Tree Fruit.—Where these are grown as standards in the garden or orchard, summer pruning is not practicable nor necessary. The following remarks apply to specimens trained on wall or trellis, or grown in bush or pyramid form in the cultivated open ground. From the

first fortnight in August in the South to the last fortnight of the same month in the North of England is the best time in normal seasons for the work. The chief objects in view are the economical and profitable use of space and the maturation and full development of fruit-buds. Most varieties of tree fruit grown in a trained or a bush form are very wasteful in the matter of space. Examining an average extension or a main lateral growth in the autumn, one invariably finds the plump fruit-buds occupying the central portion, and separated from the old wood from which the shoot sprang by several inches of young wood bearing small, flat buds. With these latter buds we are mainly concerned. If we neglect to prune the shoot in the summer and winter, these wood-buds will in all probability remain dormant, thus conducing to a loose and rampant, even if fairly fruitful, bush.

Again, should summer pruning be neglected and the grower, under the impression that winter pruning is essential, prunes back to the normal 4 inches or 5 inches, these basal wood-buds will almost all produce strong shoots, which renders the tree a veritable thicket the following summer. It is far better, where summer pruning of open-ground fruit is not attempted, to merely remove to the base two-thirds of these growths at winter pruning, leaving the rest to bear fruit. Some varieties do, indeed, bear best when treated in this manner, such, for instance, as Lord Derby, Domino, Irish Peach and Cornish Gilliflower. Coupled with the removal of weak, useless shoots in the summer, the method of merely thinning in winter may be commended to market growers, with whom shape and space are of less importance than the saving of labour and early production of fruit.

With the exception of those varieties mentioned, there are very few others which will not respond successfully to summer pruning as it is generally understood and practised. At the time mentioned, all new growth except the main extension growths must be cut or pinched back to an average of six buds (generally approximating to 4 inches to 6 inches from the base). In the case of Plums on walls, &c., this may be slightly severer, and where much breast-wood is made, preceded at an earlier date by judicious wholesale thinning. In clay soils and damp autumns the bud immediately below the cut may "push" 1 inch or 2 inches. This does not matter, however, since all summer-pruned growths are cut back one, two or three buds further at winter pruning, according to the strength or need of the growth.

The effect of this method of pruning is to cause the basal wood-buds to develop the following summer. One or two will produce wood growths, while from one to three will produce short fruiting spurs. The reader must bear in mind that this severe method of pruning applies only to lateral and other subsidiary growth. The extension shoots are pruned only in winter, and then only slightly, if there is ample room for development.

Bush Fruit.—Under the influence of good cultivation, bush fruit is prone to grow luxuriantly and densely, such growth being in consequence drawn and imperfectly ripened. The pruning needed is more in the nature of thinning, and can most advantageously be carried out from now onwards as occasion requires, rather than be performed at any special period.

Red Currants are generally the first to need attention, producing abundance of breast-wood when grown on walls, or laterals vying in strength with the leaders when grown in the open ground.

This superabundance must be removed by the shortening of all but the extension shoots back to within 1 inch or 2 inches of the old wood. This cutting back must be modified in those instances where serious leaf reduction appears possible under the full treatment.

Black Currants, when growing strongly, need a slight thinning of the young shoots to admit of short-jointed, well-ripened wood for fruiting next year. A percentage of the old wood can also often be advantageously removed as soon as the fruit is gathered.

Gooseberries are prodigious shoot producers, and even moderate pruning aggravates the evil. The judicious thinning of entire shoots will, however, do much good and help to prevent or repress American Gooseberry mildew.

Raspberries are pruned when fruiting is finished by the entire removal of old canes. Sometimes, however, where the young growth arises thickly, much benefit will accrue to the elimination of the weakest canes. C. W. MAYHEW.

MULTIFLORA AND WICHURAIANA ROSES IN POTS.

[In Answer to a Correspondent.]

If these are desired for exhibiting next spring, it would be advisable to procure pot-grown plants this autumn and pot them on into larger pots. But I presume that your correspondent is desirous of potting up plants from the open ground, which is the most economical plan, although they would not give much bloom the first year.

Procure in October good strong, field-grown plants with well-ripened growths. Pot these into 8-inch or 9-inch pots. Cut back the roots considerably and pot firmly, using a compost of two parts good loam, one part well-rotted manure, and add a 6-inch potful of bone-flour to two bushels of compost. Shorten the growths of the plants to about five feet and stake them; then plunge the pots outdoors in a bed of ashes or other plunging material. Keep them there until February, when, if a warm greenhouse is available, they can be placed therein. The soft growths should be pruned back to within 3 inches or 4 inches of their base, retaining merely one or two well-ripened shoots about five feet high. Start the plants in a temperature of about 45° by night and 50° by day, and increase gradually to 55° by night and 60° by day.

The syringe should be applied freely on fine days, the object being to encourage new growths from the base as early as possible, as it is from these the next season that the best trusses of bloom will be obtained. These ramblers need abundance of water when growing freely, also well syringing; but they do best in rather small pots, so that 8-inch or 9-inch will be ample. By September, or even August, the plants may be hardened off and placed outdoors, tying their growths to the front of the greenhouse in order to induce a thorough ripening of the wood. Should a greenhouse not be available, the plants can be grown outdoors, but in this case they must not be pruned quite so severely. The plants can be set out in full sun at the end of May and kept well watered, when they will furnish themselves with good growths during the summer. A dozen splendid varieties are: Multiflora.—Mrs. Flight, Tausendschön, Crimson Rambler, Blush Rambler and Goldfinch. Wichuraiana.—Dorothy Perkins, Lady Gay, Lady Godiva, Excelsa, Sodenia, Sander's White and Hiawatha. DANECROFT.

BOOKS.

The Book of Hardy Flowers.*—This is a bulky volume, running into nearly five hundred pages; one, moreover, whose contents are not to be gauged by the name on the cover, though in this connection, if the purchaser gets more than he bargained for, he at least should be satisfied. Under the above-named title, indeed, are to be found all sorts of plants, from the wealth of hardy plants now in vogue to half-hardy annuals, Acers, conifers, Pines, Juglans, and such well-known stove and greenhouse plants as Abutilon, Alternanthera, Ageratum, Ardisia, Acalypha and others which have not the least claim to hardiness. It is in these circumstances that we are surprised a more suitable title was not found for a book which certainly teems with sound practical matter. Assisted by several writers of repute, the author has produced a really excellent volume, which will be valuable because of its comprehensive character. The many genera embraced are treated in alphabetical order and brief information given, though in the case of an important family like Liliaceae we could have wished for much more of a practical nature. *Lilium chalcedonicum*, for example, is not likely to give of its best "in ordinary ground in a sunny border." Nor is the reader told that *L. longiflorum* is of little good for the open garden permanently. Such discrimination is of the greatest help to those whose knowledge of a subject is little more than elementary. No reference is made, so far as we observed, to the swamp-loving Lilies, and moisture-lovers are indiscriminately associated with others that do well in ordinary borders. So unique a genus merited special treatment. For transplanting the Christmas Rose, "July" is a most unhappy choice, and though we are told that most agree that that time is "most suitable," we candidly confess we have never seen it recommended before. "March" for Flag Irises is far happier, and, moreover, correct. Generally, however, the information given, though very brief, is reliable. The book is well got up and nicely illustrated, and, for so considerable a volume of matter, exceptionally free from errors.

The Hobby Gardener.†—Of a hundred or so pages this is one of a type of books whose title-page belies its contents. Judged by the former, one would expect to find it dealing with a few specialities from which the "hobby gardener" might take his choice. As a matter of fact, no single "hobby" of the gardening profession is touched upon, and instead, a smattering of this and that of a more or less indefinite kind. Diagrams and illustrations abound, but of a type which we see daily, and which become wearisome by repetition. The year's work is divided into months, a sample of that given for January being "The Feeding of the Lawn," "Planting Shallots"—without a qualifying word—and "Seed Catalogues." In this latter connection the "hobbyist" is seriously assured that "it is the customer who orders first who invariably secures the pick of the seed." We have heard of the "early bird getting the worm," but not till now did we know that it was the first customer who stood the only chance of getting the "pick" out of, say, a few tons of grass seeds or Sweet Peas. It is statements of this kind which bring such books into well-

* "The Book of Hardy Flowers," by H. H. Thomas. London: Cassell and Co., Limited; price 12s. 6d.

† "The Hobby Gardener," by A. C. Marshall. London: C. A. Pearson, Limited; price 1s.

merited ridicule. Moreover, they are as absurd as they are untrue. Occasionally, as in "August," the illustrations possess some teaching value, though the extravagant idea of "How to Make a Potato Clamp" (page 85), and in which even the gardener of a millionaire would hardly indulge, will scarcely appeal to a suburban dweller whose garden, often enough, is not much larger than the sitting-room of his dwelling.

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

Offices: 20, Tavistock Street, Covent Garden, W.C.

ANSWERS

TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

SWEET PEAS DISEASED (Miss S. R. F.).—There is some trace of root rot, due to the attack of *Thielavia basicola*, and this is no doubt the cause of the trouble with the Sweet Peas. It would be well to give the soil where it is intended to grow the Sweet Peas next year a good dressing of wood-ashes or potash salts if they can be obtained.

INFORMATION ABOUT VERBASCUMS (J. R.).—The only safe way would be to treat V. Miss Willmott and Harkness Hybrid as biennials, and by sowing seeds each year keep up a succession. Even the other kinds should be tried on the biennial plan, as, thus grown, the plants are much finer at flowering-time. To get the best results from this, the seeds should be sown in January or February in the greenhouse, growing the seedlings on singly in pots and planting them out in May. In this way you get a good leaf development in the first year, which results in a proportionately good flowering the next. There are only two ways to account for the failure of the seed—either it is infertile or has perished in the soil. Try sowing under glass as suggested above, or even late in autumn, soon after the seed is harvested, in a cold frame. Few plants generally are less fastidious than these.

CUTTING DOWN LILIES (N. M. R.).—It is better in all cases to allow the stems to mature before cutting them down, though in no instance should seed-pods be allowed to form. With plants of weakly growth, bulb development may be assisted by the early removal of the flower-buds. In this way the whole energies of the plant are directed to growth and bulb development. Conversely, the bulb may be weakened by the immediate removal at ground-level of the stem after flowering, its fullest development being in no small measure due to the vital forces of the plant remaining unimpaired to the end. For example, a plant early suffering from disease is bereft of the functions of leaf and stem—small bulb growth the inevitable result. Much the same thing, though in lesser degree, perhaps, would ensue by the wholesale removal of the plant's growth at the moment of its highest development.

PELARGONIUMS AND SWEET PEAS (*Miss H. B. M.*).

—Part of the trouble with the Pelargoniums is that they are attacked by green fly, but some mistake has also been made with the watering, and this is mostly accountable for the discoloration of the leaves. It is quite true that Sweet Peas are fertilised before the flowers open, generally about three days before, and it is essential in hybridising them that they should be pollinated before this. To do it, one must open the buds while yet four days too young to open naturally, remove the unopened anthers, pollinate the stigma, and cover with a bag to exclude foreign pollen.

TREES AND SHRUBS.**LEAVES OF BIRD CHERRY EATEN** (*Reckank*).—

The Bird Cherry is very badly attacked by the lesser ermine moth (*Hyponomeuta padicella*). The webs are made by the caterpillars in order to afford protection for them in wet weather and at night, and this habit of hiding in webs gives the opportunity of dealing with them which ought not to be missed, viz., cutting out the webs while the caterpillars are resting in them, and dropping them into a pail of water with a little paraffin on the top. The only other mode of dealing with the pest is to spray the trees with lead arsenate at the rate of 1lb. to 15 gallons of water; but it will be difficult to wet the whole of the tree with the material, since the webs are so numerous and so copious.

REPLANTING A SHRUBBERY (*A. H. R.*).—When

replanting your shrubbery, it would be advisable to confine your background of conifers to kinds that do not spread widely. The Deodar, although a very beautiful tree, is better fitted for an isolated specimen on a lawn or in a park, or for grouping in a park, than for planting at the back of a shrubbery, on account of the wide spread of its branches. There are, however, many desirable coniferous plants, such as Pines in variety, *Thuja plicata*, *T. orientalis*, *Cupressus lawsoniana* and varieties, *C. pisifera*, *C. obtusa*, *C. nootkatensis*, *C. macrocarpa*, *Prumnopitys elegans*, *Tsuga Sieboldii*, *Libocedrus decurrens*, &c., which may be used. The flowering trees, such as you suggest, should not be used as a distinct line in front of the conifers. Rather let the two kinds of trees intermingle, and allow the small ones to stand well forward here and there. A few good flowering trees are *Prunus serrulata*, *James H. Veitch*, *P. s. watereriana*, *P. Avium flore pleno*, *P. Padus flore pleno*, *P. subhirtella*, *P. Amygdalus*, *Pyrus spectabilis flore pleno*, *P. floribunda atrosanguinea*, *Magnolia conspicua*, *Laburnum alpinum*, *L. Watereri*, *Robinia Kelseyi* and double-flowered Thorns. The decision as to large or small groups of shrubs must depend largely upon whether you prefer broad displays of a few subjects or a larger collection of shrubs. A shrubbery composed of a large number of small groups of shrubs is infinitely more interesting than one composed of a small number of kinds of plants arranged in large groups. Very often three plants are sufficient for a group, but in the case of very small-growing ones it may be necessary to use ten or twelve. By using a large number of kinds of plants it is possible to have some in flower over about nine months of the year, commencing with *Hamamelis mollis* and *Erica mediterranea hybrida* in January, and ending with *Arbutus Unedo* in the autumn. Pretty combinations can be made by using coloured foliage shrubs in distinct groups, such as *Prunus Pissardii*, purple and golden leaved Nuts, Japanese Maples, variegated-leaved *Euonymus japonicus*, *Acer Negundo variegata*, *Santolina Chamaecyparissus*, *Cornus Späthii*, &c. Then *Magnolia stellata* may be planted near *Forsythia suspensa*. *Spiraea arguta* is a good companion for *Prunus triloba flore pleno*. *Cytisus albus* and *C. scoparius andreaeanus* may be planted together. *Laburnums* or *Pyrus spectabilis flore pleno* may be grown above any of the spring-flowering *Spiraeas*. A good summer group can be formed by planting *Spiraea japonica* Anthony Waterer with dot plants of *S. salicifolia*, and so on. The *Cotoneasters* should be included on account of their berries, particularly *C. frigida* (a tall-growing species) and *C. rotundifolia* (which grows about four feet high).

ROCK GARDEN.**PLANTS FOR RETAINING WALL** (*A. T.*).—We are

afraid few plants will thrive under the Pine tree shade, though Wallflowers and Antirrhinums will endure drought as well as most plants. We know of no "copper coloured leaved" plant suitable for the top of the wall, though *Ajuga reptans purpurea* is a good dark-leaved subject. Mauve colour would be best represented by *Aubrietia Lavender*, which is of a very charming shade. Orange you would get in *Helianthemum cupreum* and *Potentilla Tongol*, the first being the best for the wall. For the rest you might specialise in *Aubrietias*, as Dr. Mules, Fire King, Lloyd Edwards, *tauricola*, *Souvenir de W. Ingram* and others, all of which are good, easily grown and free flowering. *Campanula pusilla*, *C. p. alba*, *C. p. Miss Willmott* (silvery sky blue), *C. garganica* in three shades and *C. isophylla alba* would be also valuable. White-flowered plants are *Achillea rupestris*, *A. serbica*, *A. Clavennae*, *A. argentea*, *A. leucophylla* and *A. umbellata*, all but the first also having silvery foliage. These plants are usually good in dry, sunny walls. The Cobweb Houseleek (*Sempervivum arachnoides*) would be excellent if freely planted, and many of the silvery Rockfoils (*Saxifragas*) would do quite well. We are pleased to know that THE GARDEN has been so helpful to you.

THE GREENHOUSE.**CULTURE OF STEPHANOTIS FLORIBUNDA** (*F. O. B.*).

—If the minimum temperature during the winter is a

no time below 55°, *Stephanotis floribunda* can be successfully wintered. You do not say under what conditions you intend to grow the plant, whether in a pot or planted out, or the size of the structure available. For a large house the most satisfactory way is to plant the specimen in a prepared bed, in which provision is made for ample drainage. The soil should be taken out to a depth of 2 feet, in the bottom of which 6 inches or so of broken brick rubble, broken crocks, &c., should be placed in order to allow the water to run away freely. A suitable soil may be made up of three parts turfy loam to one part of peat and one of good leaf-mould, with nearly one part of silver sand. If grown in a pot, the same kind of soil will be suitable. With regard to watering, it requires a liberal amount of moisture during the growing season; but in winter especially, where subjected to a minimum temperature of 55°, it needs at that season to be kept moderately dry. Concerning pruning, it will depend to a great extent upon the roof space that is available, for, until it is covered, very little pruning will be needed. When it has furnished the whole of the available space, any old and exhausted shoots may be cut out early in the year, thus making way for young and vigorous ones. When the plants are growing freely, care must be taken to keep the shoots regularly trained, as, if allowed to become entangled it is very difficult to straighten them again. This *Stephanotis* is very liable to be attacked by mealy bug, so that especial care must be taken to keep the pest in check. An occasional sponging with soft soap and warm water will do much towards this end.

FRUIT GARDEN.

MELONS FAILING (*R. J.*).—Something has been amiss with the cultivation of your Melon plants. The leaves plainly show that atmospheric conditions have not been suitable, and ask for greater attention to moisture requirements and ventilation. "Scorching," as often as not, results from inattention to ventilation.

RASPBERRIES UNSATISFACTORY (*E. M. N.*).—There is nothing on the pieces of cane sent to enable us to say what is amiss with the Raspberries. It is possible that the flowers have been damaged by the Raspberry beetle (*Byturus tomentosus*), but it may be that the canes are attacked lower down by a fungus, which is very prevalent in certain places, called *Hendersonia Rubi*, which forms grey, black-spotted patches on the stems. There is not much that you can do with the Gooseberry bushes while the leaves are on. Write us again about them at the end of October.

KITCHEN GARDEN.

PEA PODS DISCOLOURED (*J. Smith*).—The Peas are attacked by the Pea thrip, a very destructive pest when it is abundant. It would be well to spray the affected plants with paraffin emulsion when the yellow or black insects are seen on the pods. Old sticks probably harbour them, and should be burned.

PEAS FOR INSPECTION (*Sir B. F.*).—We think that your plants must have received a check during the past dry weather, for watering can never take the place of rain, as it does not alter the conditions of the atmosphere to anything like the extent to which rain alters it. The farmyard manure would be likely to encourage the growth of the root-rot fungus, which is able to seize upon the roots of Peas weakened by any cause. Potash manures are the most likely to counteract any conditions tending to the attack.

CARROTS UNHEALTHY (*Cliffe*).—The Carrots are badly attacked by the Carrot fly, *Psila rosae*. This, which is a small black fly with two wings, lays its eggs near the roots of the Carrots or on them, and sprinkling sand moistened with paraffin along the rows is an aid to checking the egg-laying. Another important thing is to take care in thinning the Carrots that the earth is not disturbed too much, and that all thinnings are removed from near the plants as completely as possible, as they are apt to attract the flies.

HINTS ON GROWING POTATOES (*H. Batten*).—The Potato will succeed in any well-cultivated and fairly manured soil, but it succeeds best in deep loam of a light sandy texture. The best way to manure the soil for Potatoes is to lay a moderate amount of farmyard manure in the furrows before planting. It is now late to plant Potatoes; but later sorts may still be planted with fair prospect of success, so long as the tubers planted are sound and fertile. Plant in rows 2 feet apart and the sets a foot apart in the rows, covering them with soil 6 inches deep. The best varieties to plant are *Up to Date* and *Factor*. The tubers of the former are the cheapest. Do not plant near the Oak. The shade from the tree and its roots robbing the soil will effectively prevent the crop being satisfactory.

MISCELLANEOUS.

CLOVER ON LAWN (*E. H. P.*).—You may dress your lawn with sulphate of ammonia at the rate of a pound to the square rod, not more. This will discourage Clover if done year after year, and encourage grass. The Anti-Clover Manure sold by Messrs. Pearson of Lowdham, Notts, we have found very useful for ridding lawns of Clover.

NAMES OF PLANTS.—*Dundag*.—We cannot name plants for anonymous correspondents: see rules. If you will send fresh specimens, with your full name and address, not necessarily for publication, we shall be pleased to assist you.—*R. M. E. Y.*—White Dorothy Perkins.—*M. G. R.*—Hiawatha. We are glad to know that you appreciate THE GARDEN.—*Nature Lover*.—1,

Juniperus recurva; 2, *Salix*, probably *triandra*; 3, *Podocarpus drupacea*; 4, *Abies nobilis*; 5, *Pseudotsuga Douglasii*; 6, *P. albertiana*; 7, *Fagus sylvatica quercoides*; 8, *Taxodium distichum*.—*Boris*.—*Rhus Cotinus*.

SOCIETIES.**DUNFERMLINE ROSE SHOW.**

THE annual Rose show, under the auspices of the Carnegie Dunfermline Trust, was held in Dunfermline on July 22. It was a marked success, despite the dislocation of horticultural affairs caused by the war—a success which was a tribute to the management and the enterprise of trade and other exhibitors. It was surprising to find that the entries, which numbered 630, staged by over one hundred and twenty exhibitors, exceeded those of last year. The quality, too, was of remarkable merit. Roses were superb, so were Sweet Peas, and the herbaceous flowers were of magnificent quality. The whole show merited the description given as "the finest ever held in the district."

The leading prize for Roses, the Carnegie Championship for seventy-two blooms in thirty-six varieties, was won by Messrs. R. Harkness and Co., Hitchin, Herts, with flowers which were generally of superb quality and embraced the leading varieties of the day. In the classes for thirty-six and twenty-four cut blooms, Mr. W. H. Frettingham was the winner. The National Rose Society's medal for the best Hybrid Perpetual or Hybrid Tea Rose was won by Messrs. D. and W. Croll, Dundee, with *Snow Queen*. Mr. J. Pigg, Royston, won a similar award for a Tea with Mrs. E. Mawley.

In the amateur classes Florence Pemberton was the best Hybrid Tea or Hybrid Perpetual, and Mrs. E. Mawley the best Tea, Mr. J. Ireland being the exhibitor. The other Rose classes were excellent.

The principal class for herbaceous plants was the open one for a display, for which a prize of £10 was offered. Here Messrs. J. Cocker and Sons, Aberdeen, again carried off the leading honour, thus making the record win of this class for twelve years in succession. The exhibit was of specially noteworthy merit.

The Sweet Pea classes were well contested. First-class certificates were given to Messrs. Dobbie and Co., Edinburgh, for *Jean Ireland*, *Tea Rose* and *Old Rose*.

Seedsmen in the Army.—Messrs. Kelway and Son of Langport, Somerset, send us a list of their employes who have enlisted in the Army or Navy since the commencement of the war. The total is thirty-three, or about 23 per cent. of men, women and boys employed by the firm on August 1, 1914.

Visit to the Kinver Trial Grounds.—On the 28th ult. the foremen of the various parks of the City of Birmingham, accompanied by the Chief Officer, Mr. William H. Morter, journeyed by motorbus to the trial grounds of Messrs. Edward Webb and Sons (Stourbridge), Limited. After a tour of the grounds, in which the keenest interest was evinced, the party adjourned for luncheon provided by Messrs. Webb, and later a visit was paid to the famous Kinver Edge, also the property of the firm, from which a magnificent view of the surrounding country is obtained. Favoured with delightful weather, the outing proved a great success.

Wargrave and District Gardeners' Association.—By the kind invitation of Messrs. Sutton and Sons the members of this association visited their seed stores and trial grounds on July 22. The party was met at the head office by Messrs. Albury, Blaxell and Taylor, who conducted them through the various offices, seed stores and order rooms, explaining the uses of the many machines for winnowing, cleaning and grading the seeds received from the growers. On visiting the seed-testing and germinating house the members were much impressed by the careful and systematic way in which this work was carried out. The range of greenhouses at the trial grounds was next visited, where fine batches of Begonias, Cyclamen, &c., were giving promise of an excellent display of bloom. The party was kindly entertained to tea by Messrs. Sutton, and a vote of thanks was unanimously passed to them and suitably acknowledged by Mr. Albury on behalf of Messrs. Sutton and Sons.

* * The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

THE GARDEN.

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AUGUST 14, 1915.

NOTES OF THE WEEK.

Carlisle and Cumberland Horticultural Association.—The show arranged in connection with this association, which was to be held on August 25 and 26, has been abandoned.

Shirley Poppies as Cut Flowers.—Full-blown flowers of Shirley Poppies are of little use as cut blooms, owing to their fleeting beauty; but when cut in the bud state, before the hairy green sepals have fallen, the petals eventually unfold and the flowers remain in their fresh, full beauty for several days. If full buds are cut in the evening and placed in water, they will unfold by the following morning, and there is every reason why this method should be practised when Poppies are required for home decoration.

Mr. A. Garnett Leaves for Tasmania.—On August 6 Mr. Arthur Garnett left England on the Arawa for Tasmania, where he will join a friend on a fruit farm near Hobart. Mr. Garnett had been employed at the Royal Gardens, Kew, as a technical assistant for about ten years. In his new venture he takes with him the best wishes of a very wide circle of literary and botanical friends.

The Giant Sea Holly.—One of the most attractive hardy plants at this season is the Giant Sea Holly, *Eryngium giganteum*. As will be seen in the accompanying illustration, it makes a sturdy, branching plant some 3 feet to 4 feet high, its heads of Teasel-like flowers, as well as the stems, being coloured a brilliant shade of steel blue. It is this unique colour that renders it so valuable a plant at this season. A native of the Caucasus, it was introduced to this country in 1820. Like other members of the family, including our native Sea Holly, *E. maritimum*, it appreciates soil that is of a porous or sandy character.

Planting Strawberries.—We would remind readers that the present is the best time of the whole year for making new Strawberry-beds. Owing to the wet weather, runners are exceptionally good this year, and the earlier they are planted the better. If put in during the next week or two, they will be well established before the winter, and will give good crops of fruit next

year. Several nurserymen issue special lists of plants, and most varieties are inexpensive to buy. Vicomtesse Héricart de Thury, Royal Sovereign, Bedford Champion, The Bedford and Givon's Late Prolific, ripening in the order named, are all excellent.

Death of Mr. T. A. H. Rivers.—Just as this issue was going to press we received news of the death of Mr. T. A. H. Rivers, of the well-known firm of Messrs. Rivers, Sawbridgeworth. The deceased was only taken ill on Wednesday of last week, and passed away on Friday, the 6th inst.

large enough planted in full sun in light, sandy soil.

The Evening Primrose.—Now that we have so many other beautiful flowers, the common Evening Primrose gets somewhat neglected. This is undoubtedly partly due to it closing up during the day, and also it is thought too common; but there are many spots in most gardens where it could be an object of beauty. A group of the large-flowered form known as *Oenothera lamarckiana* that we recently saw growing on the shady side of a large shrubbery looked very beautiful during the early morning and evening, the spikes of large yellow flowers standing out boldly against the dark green background.

In the Primula Dell at Clandon.—It is hardly to be expected that hardy Primulas should flower so late in the year as August, yet there is one Primula still making bright splashes of colour with its whorls of reddish purple flowers. The Primula in question is *P. Poissonii*, which annually produces flowers right through the summer until the autumn. Tall spikes of the beautiful Blue Poppy, *Meconopsis Wallichii* enhance the beauty of the dell. The gardens are much enjoyed by wounded soldiers who are in hospital in the Earl of Onslow's mansion at Clandon Park.

The Herb Lily.—Beautiful and attractive as are the *Alstroemerias*, they are a class of plants that seem very much neglected. Although perhaps some of them are of doubtful hardiness, such is not the case with *A. aurantiaca*, which is one of the freest and most beautiful plants

flowering at the present time. They are no trouble when once established. Plant the roots deeply and leave them alone, for if we would have its full beauty it must remain undisturbed, and each year it will increase. Although growing a yard high, this plant needs no support, its shoots being stiff and strong and well clothed with ample foliage. Each growth terminates in an umbel of from twelve to fifteen flowers of a deep orange colour, and continues to bloom for the greater part of the summer. It is highly effective, both upon the plant and in a cut state, remaining fresh for a long time.



A NOBLE STEEL BLUE, HARDY PLANT: *ERYNGIUM GIGANTEUM*.

All who were privileged to know him will learn of his sudden demise with the deepest regret. The funeral took place at Sawbridgeworth Church at 3 p.m. on Monday last.

An Attractive Annual for the Rock Garden.—At the present time, when the rock garden is not looking so bright as it was a few weeks ago, a nice patch of *Grammanthes gentianoides* is very welcome. This bright little annual, with its orange-red shaded flowers 3 inches high, is now looking very bright. It is allied to the *Sedums*. It should be raised in pots in March, and when

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Myosoidium nobile in Scotland.—The Chatham Island Forget-me-not is seldom met with doing well in Scotland. It is, however, successfully cultivated in the exquisite and interesting gardens of Mr. Kenneth McDouall of Logan, Wigtownshire. There it received a slight protection with straw in the winter—a precaution well repaid by the handsome leaves and flowers which are obtained in due course.—S. ARNOTT.

A Beautiful Plant.—*Lythrum virgatum* presents a beautiful sight on the banks of the River Avon at Keynsham, growing in a wild state, with its elegant branching, fairy-like spikes massed between the wild *Achilleas* and *Lythrums*, and as one walks along the towing path towards Bath the plants are still growing freely on the banks.—JOSEPH ETTLE.

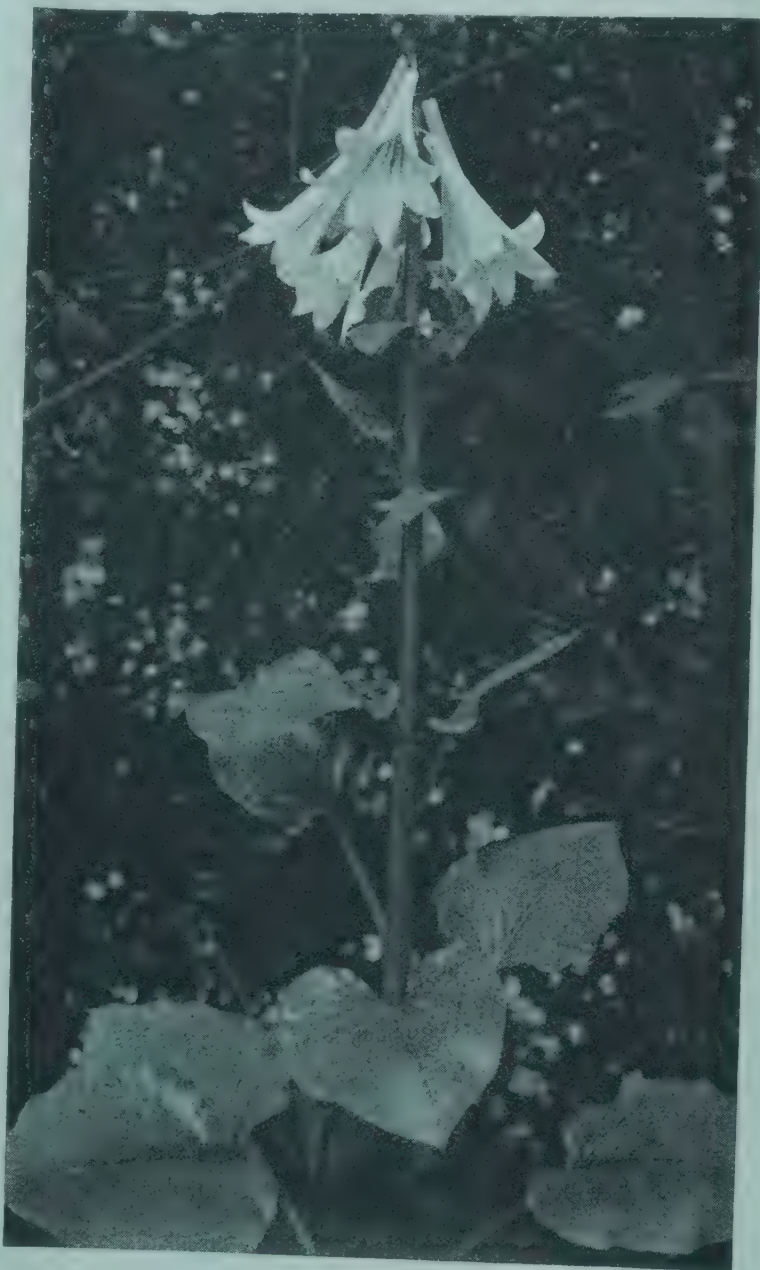
Rose Minnehaha.—This *Wichuraiana* Rose, raised by Walsh in 1905, is not grown nearly as much as its merits deserve, which cover a wide sphere of commendation—vigorous growth, freedom of flower, panicle-like sprays of bloom 18 inches in length, double, dark rose in colour, very conspicuous among other Roses, as its colour is quite distinct from all other sorts, and, above all, the foliage is immune from any insect or mildew attack. Grown as a pillar is the most effective method of displaying its virtues. Those who see it for the first time are delighted with its appearance.—E. M.

Snapdragons for Present Sowing.—The note on these beautiful and extremely useful flower garden plants, page 374, issue July 31, is timely and very encouraging to those cultivators who wish to have early flowering plants next year. The reference to the very dwarf and tall growing sections, respectively, is quite a correct one, as they would be rather disappointing except in special circumstances. The intermediate section, if transplanted twice before their final shift to the flowering quarters, grow very bushy and make a splendid display in due course. These plants thrive well in soil in which some old mortar rubble has been mixed—about a spadeful to a bushel of soil when transplanting in the seedling stage.—AVON.

Pæonia officinalis lobata.—This, which has recently been mentioned in two previous numbers of THE GARDEN, is certainly one of the most beautiful of the whole genus, the colour being very pleasing and quite distinct, while the plant is elegant and compact, and far superior to many others that are often grown in gardens. It was first received in this country from the Royal Gardens in Paris by a Mr. Alexander Macleay, in whose garden it flowered in 1821. It was considered, according to Mr. Sabina, who had probably the largest collection of Pæonies at that time, a distinct species, under the name of *P. lobata*; but it has since been classed as a variety

of *P. officinalis*, its origin being unknown.—F. G. PRESTON.

Small Bedding Dahlias.—The Mignon Dahlias sent out by Messrs. Cheal of Crawley are charming little plants for bedding. They are being tried here this year for the first time, and are a great success. They may be had in assorted shades, and all come quite true to colour. As the season advances, provided dead blooms are picked off, they are covered with a profusion of small, single, well-displayed flowers, and the plants are dwarf and of ideal bedding habit. As they become



LILIAM GIGANTEUM FLOWERING IN THE GARDENS AT CASTLEFORD, CHEPSTOW, GLOUCESTERSHIRE.

better known I am certain they will be made extensive use of.—F. HERBERT CHAPMAN, Rye.

An Autumn Rockery Note.—The summer and later flowering occupants of the rockery never seem to get that public notice which their early flowering relatives do, yet there are many good plants to be had by those who so desire. On July 31 the modest collection here contained the following in flower: *Anomatheca cruenta*, *Asperula hirta*, *Arabis alba* flore pleno (second flowering), *Berberis Wilsonii*, *Campanula pulla*, *C. Miss Willmott*, *Convolvulus mauritanicus*, *Dianthus graniticus*, *D. superbus* and *D. del-*

toides (seedlings), *Erigeron mucronatus*, *Erodium cicutarium*, *Erythraea Massonii*, *Chrysogonum virginicum*, *Fuchsia Tom Thumb*, *Mentha Requienii*, *Oxalis rosea*, *Oenothera eximia*, *O. Arendsii*, *Parochetus communis* (in bud), *Pratia angulata*, *repens*, *Scabiosa graminiflora*, *Sedum kamtschaticum*, *Statice incana nana*, *Tunica Saxifraga*, *T. S. flore pleno*, *Verbena chamædrifolia*, *Wahlenbergia gentianoides*, *Viola Papilio* and several annuals.—C. TURNER, Highgate.

Lilium giganteum in Gloucestershire.—The flowering of this remarkable Lily always creates a certain amount of interest, and the conditions under which the plant has been illustrated bloomed may not only be interesting, but perhaps helpful to not a few readers of THE GARDEN. It was planted a year ago, being removed from another position, and this season produced a spike 5 feet high with seven flowers, which were pure white, the tinge of green associated with this species being conspicuous by its absence. The foliage was healthy down to the base. The plant was grown practically in dense shade, about eight feet from the grass verge, and surrounded by shrubs except for an opening between 3 feet and 4 feet wide and 9 feet high. It was top-dressed with rotten manure and leaf-soil, and occasionally watered whenever the weather was dry and hot. The photograph was taken by Mrs. Lysaght in the fine gardens of W. R. Lysaght, Esq., Castleford, Chepstow, Gloucestershire, where many choice and rare plants find a home. *L. giganteum* is a native of the Himalayas, and is said to be hardy only in favoured localities; but if it will succeed in other gardens under the conditions stated above, there appears to be no reason why its cultivation should not be extended to other parts of the country which are often referred to as unsuitable.—B.

Watering Melons.—When one reads instructions as to the treatment of Melons, they generally include something similar to the following: "Keep the soil quite dry (or perfectly dry) near the stem"; or "Place a collar round the stem to keep the soil dry there." Those instructions also refer to atmospheric moisture: "Syringe the plants and damp the floors of the houses thoroughly"; often, "several times each day." Now, I am firmly convinced that Melon plants are coddled too much and unduly forced. Throughout a long gardening career I have never hesitated to water the soil right up to the stems of the plants, and have never lost a single plant through doing so. After gaining certain experience I refrained from maintaining so much atmospheric moisture, and have given the plants more air than is usual, with the result that my plants would grow on and bear second crops of fruits if needed. This is proof enough of their healthy condition throughout. The soil I prefer is a good stiff loam, without any leaf-soil, sand or manure, made quite firm. The feeding is done after the fruits are set. Fruits cut from healthy, not collapsed, plants always possess the best flavour,

according to variety. Early in the season less water and less air are needed; later, more water and more air; but the prevailing weather conditions must always be duly considered. I have seen many plants in large pots freely watered, without regard to the water touching the stems, mature splendid crops.—G. G.

How to Grow *Gentiana acaulis*.—I was very interested in reading, on page 373, issue July 31, experiences on growing *Gentiana acaulis* on sandy soil. My trouble has been to get it to flower on my light, sandy soil here, and I have tried various recipes, most of them consisting of a nourishing diet, but I still fail. Now I believe your correspondent has solved the difficulty for me. It does not require coddling and feeding up, but rather starvation. Two days ago I spent an interesting and instructive afternoon in a lady's rock garden. There she told me she could flower *Gentiana acaulis* anywhere, although it is in a part of the country where Pine trees and Heather abound. Her secret was, on the level to dig a trench about nine inches deep and fill it with small pieces of stone, sifting a little soil among them, and planting the roots between the stones and surfacing with ordinary soil, the whole being made very firm and the plants trodden in. They must be in full sun. In one part of her rock garden was a slope at an angle of 45°, having the appearance of a conglomerate mass of sand rock; but from every crevice the plants were growing, and from their heads of seed one could see what a fine display of colour there must have been.—ENTHUSIAST, *Dorking*.

The Cutting of Flowers.—“Shamrock,” writing on the above subject on page 360, issue July 24 says I should have given a list in my letter in your issue for June 19, page 301, of plants which will stand the “cut-and-come-again” practice. I am very glad to do so, as he asks for a list; but my reason for withholding one was because I thought gardeners would realise that most plants stand this practice—in moderation, of course. However, here is a list of plants which grow and blow more freely the more they are cut: *Calendula grandiflora*, *Centranthus ruber* (Valerian), *Aconitum bicolor*, *Dimorphotheca aurantiaca hybrida*, *Eschscholtzia californica*, Sweet Peas, Everlasting Peas, *Galega officinalis*, *Coreopsis*, and Shirley Poppies. The following is a list of plants which do not stand so much of the practice, but which can, nevertheless, be cut from remarkably freely, and will either bloom again later or continue to bloom for some time: *Erigeron speciosus superbus*, *Chrysanthemum maximum*, *Lupinus arboreus* (white and yellow), *L. polyphyllus*, *Clarkia elegans* and others, *Godetia* The Bride and others, *Antirrhinum majus* and others, Stocks, Dahlias, *Nigella*, Foxgloves, *Potentillas*, *Geums*, *Heleniums*, *Polemoniums*, Sunflowers, *Pyrethrums*, *Doronicum austriacum*, *Anchusa italica* Dropmore variety, *Inulas*, *Gaillardias*, *Verbascums*, *Campanula glomerata* and others, *Acroclinium roseum*, and Asters. Many of these throw up first one or more main shoots or flower-spikes; but after these are removed, others of smaller size are given. Very many other plants might be named, but these must suffice. In my letter I was not thinking of flowering shrubs at all, but only border plants; hence it is not possible, if any care be taken, “to remove buds that would supply next year's bloom” On border plants these “buds” are seldom formed as early as June 19.—E. T. ELLIS, *Weetwood, Ecclesall, Sheffield*.

The Toad in the Garden.—As far as my experience goes, very few people, I find, regard the toad as a harmful creature in the garden; quite the reverse. The natural aversion felt by many persons cannot be well overcome, and, where it exists, there should be no hesitation on the part of the owner of a garden in having the toad removed from the glass structure or garden, as repeated shocks do more harm to people than the toad does good in the case of plants by eating insects, &c. Personally, I have a great aversion to the toad at close quarters, and have just taken one out of my vinery owing to the many shocks it has given me. To those who like the toad, or are indifferent to its presence, I say, “Retain it by all means.” There are so many efficacious insecticides advertised in our gardening journals now that, if rightly used, there will be little need for a toad or toads to be kept at close quarters in our gardens. The toad seems to be a somewhat intelligent creature, too. When my brother was in Messrs. Dickson's nurseries at Chester many years ago, he said there was a veteran toad kept in one of the propagating-houses. It had lost the use of one eye. Every evening it went for a constitutional walk, hop, skip or jump, but always returned to the propagating-house. If by chance it had not returned early enough to be admitted the same evening, it was there at the door the following morning, and came in directly the door was opened. This toad was a general favourite with the workmen. Rarely does anyone see a toad actually eat insects, because of the rapidity with which it darts out its tongue and the insect disappears. I have never heard of toads eating seedlings of any kind, as referred to by Mr. E. T. Ellis, page 373, issue July 31.—GEORGE GARNER.

—Everything that your correspondent, Mr. E. T. Ellis, page 373, states in favour of the toad I can fully endorse: indeed, I will go even further. In the first place, toads do not eat any plants, however tender they may be, for the toad is in no ways a vegetable feeder, and, what is more, it will only eat living insects, and even then not until they move. It is very interesting to watch it feed, for should an insect sham death, as so many of them do, the toad will watch its prey for some time, and at the least sign of movement the long, glutinous tongue of the toad is protruded with a snap and the insect disappears. All this is done so quickly that the eye can scarcely follow the action. I had a large toad in my garden for a couple of years which lived in a cool retreat made of a few bricks. It would come when I whistled, and gobble up any moving insect I gave it. Some of the ways of my toad were very interesting to visitors, especially the manner in which it would dispose of wasps. Being a cold-blooded reptile, their stings did not affect it in any way. To illustrate this, I would confine some wasps under a bell-glass and slip the toad underneath. One by one they were quickly disposed of. I grant that at a superficial glance the toad does not score much on the point of beauty; but close inspection will reveal the fact that the eyes are really beautiful.—H. P.

FORTHCOMING EVENT.

August 17.—Royal Horticultural Society's Fortnightly Exhibition and Meeting, Vincent Square, Westminster, 1 p.m. to 6 p.m. Lecture at 3 p.m.

NOTES ON SOME OF THE NEWER SWEET PEAS.

BY THE REV. JOSEPH JACOB.

SOME lucky person, who was able to go to the trials and accept the kind hospitality of Messrs. Dobbie and Co. and Messrs. Alex. Dickson and Sons at Mark's Tey, sent a very interesting list to THE GARDEN for July 24 of the new Sweet Peas that struck him. As I also made some notes of what he saw at Holland House and the “National,” although he was unable to join in the outing, a comparison may be of interest. To the remarks of the “unknown one” with regard to Mrs. E. Wright, I thoroughly agree. Its dainty heliotrope wire edge with its delicate flushing of palest purple gave it a most pleasing refinement. No one can fail to be charmed with it.

Here we part company for a time, for no mention is made in THE GARDEN list of Sir R. Baker's intense deep blue-purple which was staged in the class for three home-raised seedlings. Since it appeared in public for the first time on the same day as the announcement of the result of the War Loan; since, to compare small things to great, it is of a colour badly wanted; and since several keen judges, like my friend Mr. Mackereth of Ulverston, voted it a great success (is not this the last word?), would the worthy baronet and his gardener, Mr. Usher, be offended if War Loan were suggested as a not inappropriate name? Again, no mention is made of Mrs. Gentle, a singularly clean and taking flower with its pretty rosy pink standard and more light-toned wings.

Cream ground Mrs. Cuthbertson does not seem to have caught my eye. Neither the “unknown” nor myself has Jean Ireland down—because he probably thought it too well known to mention, I for the same reason that cream-ground Mrs. C. was unnoticed. Personally, I am fed up with cream grounds. Once I could look at nothing else, but our eyes, like our “little Marys,” relish a change of diet. Old Rose. Yes; very nice. So, too, is Tea Rose, which I see is likely to become Sylvia [?—ED.]. Both are good, and would make delightful companions in a vase. Trial visitors speak highly of the latter as they saw it growing. It is, in my humble opinion, far and away the best of the four picked out for prospective awards: the only one, in fact, that, in popular language, I would give a sixpence for.

Dora, another of the four, I remember as a poor bicolor, with nothing at all wonderful about it; while Margaret Fife and Victory are only useful to swell the lists of the too-much-alikes.

Possibly someone will say, “How about Mrs. Gentle and Eric Harvey?” Yes; but *where* is poor Eric now? Constance Acomb; why, certainly. But how came it that the most striking—and to me the most fascinating—characteristic of the big bunch on Sydenham's stand was missed? Like Aldersey's Dragon Fly, the young blooms are quite a different colour to the older ones. In this variety they are a soft grey primrose, while those more fully developed are a pretty lilac. Possibly the two colours were taboo. They are with some people. When I ventured to say to Mr. Ireland that his rosy pink and cerise vase of Illuminator was as near perfection as anything one need wish to see, the look that came over his face was like that which comes over Mr. James

Bentley's when some poor uninitiated one expresses a liking for a Tulip with a dirty base. He quietly said such diversity of tone ought not to be. Well, we each have our opinion.

Miss Burnie—um! possibly yes. *But* I do like a little more substantiality in the charms of a beauty. "Too delicate to live" was my comment. I read "the colour soon goes, and the flower becomes practically a white," or something to this effect in the "unknown's" note of what he saw at the outing. Dickson's President no

AN ARTISTIC LITTLE GARDEN.

IT is a great art in gardening to know how to make the best use of a small space and plan it out to the best advantage. We doubt if there can be seen a more artistic little garden than that we have lately visited on the edge of our Berkshire downs. In the fresh, pure air, from the corner of a fertile



DELPHINIUMS AND PINKS IN A LITTLE GARDEN.

one could pass over. It is a truly glorious bit of colour. Mrs. Kate Hammond (Hobbies) is quite high up on my list as pink—unqualified pink. Honor Bright as a pale cerise looked very pretty. One remembered it so well from Chelsea Show, and the good impression then left behind was now renewed.

Morning Mist (a curious pale grey slate colour) and Mrs. Hugh Wormald (pale yellow wings with a buff pink standard) are noted as two out-of-the-common varieties. Until I looked at my "ejaculations" in the last Sweet Pea Annual, in the course of writing these reflections, I had no idea I had "spotted" them last year. Although of a certain age, I must put in a word for Wenvoe Castle, the exquisite shot blue and ruddy mauve; and Princess Mary, which is generally very safely described as a medium blue.

Said the Norfolk Justice to the countryman witness: "Now, tell me what sized stone was thrown?" After failing, after several tries, to get more than that it was a middling-sized stone, his Honour had a brilliant inspiration. "Tell me, my man, something it was like." After much thought the words slowly came out: "It was the same size as a middling-sized lump of chalk." Having read my little tale, what, Mr. Catalogue Maker, is a medium blue?

field, less than a quarter of an acre has been made beautiful to garnish the environment of a picturesque cottage designed by Messrs. Boulton and Paul. The gabled dwelling stands on a slight eminence, and is approached by a sloping path of brick tiles, edged by rockwork planted, and a delight at all seasons. On one side the tiny lawn is deeply sunk, and flowers shelter snugly in sunny nooks upon the narrow beds and banks. A trellis, well covered with climbing Roses envelops the whole area, which is bounded by an ancient wall bearing a succession of the charming plants which love a crannied resting-place. Wallflowers, House-leeks, Valerians, Arabis and many another make the outer boundary of this tiny pleasure a joy to passers-by. To add to their pleasure, where the flowering wall extends along the uncultivated field, a strip of ground has been fenced off for flowering trees and shrubs of various kinds, so this hospitable little garden is a beauty spot to all the hillside.

Nor have we yet exhausted its charms, for we have still to notice Rose Blush Rambler, recently in perfection, arching the brick steps at the head of the slope; and we have not explored the tiled path continued all round the house, with beds of blossom on every side, producing a delicious effect from every low window. Not a corner has been neglected, yet none is overstocked. We could

not but admire the good taste that knew how to plant profusely and never overcrowd.

Add to all this the advantage of a fine peep at the distant downs and a background of grand old Elms, and we shall be agreed that the dwellers in this little home have cause to love it greatly. And perhaps the secret of it is: Do not try to do too much; do not make your tiny space look still tinier by cutting it up into many little beds and then crowding into it as many as possible of the plants in your nurseryman's catalogue. But let your flower-beds be real borders, *i.e.*, follow the lines of house and paths and wall, and fill up with a lawn to set it all off and give one room to sit down and look at it.

GOOD YELLOW-TINTED ROSES.

WHERE I asked to-day which I consider the best yellow-tinted Rose, I should undoubtedly say Hybrid Tea Reine Mère d'Italie. Grown in bush form, it is difficult to describe its real beauty. The colour somewhat reminds me of Soleil d'Or, but has many improvements.

The first two years we grew it in Hertfordshire I was disappointed with its behaviour, so much so that I determined to lift it and replant; and, bearing in mind its distinct colouring, decided to mix a little peat, Cocoanut fibre and leaf-soil with the natural soil, which is heavy, retentive clay on chalk. The effects of the iron in the peat and the assistance to the root action by the other constituents were quite pronounced last season, both by the high tones in the colouring of the flowers and the growth of the plants. It has beautiful ovoid buds, carried on erect and rigid stems, lovely on opening, of a seductive apricot yellow ochre. The flowers when open are of good size, likewise apricot yellow ochre, washed in the centre with a mixture of yellow and Nilson rose.

Marquise de Sinety is disappointing in its growth. Some plants have done better than others, but the bed has an untidy look and is anything but even. The flowers when open are large and full; colour, Roman ochre, shaded with fiery red; the buds are carmine ochre. Being a somewhat heavy rooter, it suggests a friable soil and fairly heavy mulch.

Mrs. Aaron Ward is an excellent variety, a good grower, and carries two good crops of flowers which are beautiful in the bud and when expanded, but require shade to maintain their pleasing tints of Indian yellow and salmon pink.

Paul Lédé has a distinct yellow tint and, grown side by side with Harry Kirk and Mrs. Peter Blair, is very effective. All three varieties respond well to a little encouragement in the way of Cocoanut fibre when planting.

Mrs. Joseph Hill occupies a bed to itself, and proves itself worthy of its position every year. It is a rampant grower, and requires fairly hard pruning in late March and when the first flowers are over. The second crop is far and away the better of the two, some of the strong stalks carrying as many as nine good-sized flowers, shapely and of fine substance. Its colour is really salmon pink, shaded with yellow, the outside of the petals being tinged with coppery pink.

Mme. Mélanie Soupert is admired by everyone and possesses many charms. I had it growing among pale pink and flesh coloured varieties; but, however much the others flower, this charming variety always stands out prominent and seems to demand admiration. Its colour is saffron yellow on a carmine pink ground. Its growth is made easier in heavy soil with the help of a little leaf-soil or any thoroughly decayed vegetable matter.

Rayon d'Or I have not had sufficiently long to be able to recommend or condemn. It certainly has a colour somewhat stronger than any other we have, which makes it difficult to place. I can imagine that a small bed of it between two crimson varieties would be very effective.

Mme. Ravary is too well known to need any comment here. We have it and love it, both for its behaviour and the charming flowers it produces.

Among the many yellow-tinted Teas which are good doers, I am in favour of Mme. Chedane Guinoisseau, having grown it now for twenty years or more with marked success. It makes a splendid bush when not pruned too heavily, and is a constant flowerer from June till November. The blooms are beautiful in shape and of a sulphur canary yellow. G. B.

THE NATIVE LADY'S SLIPPER ORCHID.

(CYPRIPEDIUM CALCEOLUS.)

I HAVE been interested by the letters of your correspondents "C. Q." and "Lucy Joshua" on page 361, issue July 24, describing the habitat of *C. Calceolus* in Switzerland. It is clear from these letters that the plant will grow in the wild state under very different conditions. I have for some half-dozen years known of several patches of the plant growing in an open wood of Spruce, Birch, Aspen and Hazel, on the floor of a valley only a few feet above the river, at an altitude of about 3,500 feet. I have referred to my notes, and find that the plants were rooted in 4 inches or 5 inches of loose leaf-soil, which was filled with the fibrous-growing rootlets of Ferns, coarse grasses, and of adjacent shrubs. Below the whole were slabs and cobbles of limestone (evidently the old river bed). The roots of the *Cypripedium* barely entered the stratum of sand, and were spread horizontally through the leaf-soil. Overhead was a thicket of Hazel. I have visited this patch and two others since discovered in the same wood three times in the last six years. I have never found a single seed-pod on all those plants, so no wonder that the plant is rare, also that it is easily exterminated in any particular locality.

After losing many plants purchased and planted as recommended in the text-books "in clayey loam, wedged in fissures of limestone," &c., I and a friend, who studied carefully the conditions under which these Swiss plants above mentioned were growing, have had no difficulty in cultivating the plant in our gardens in perfection.

Select a pocket well up off the ground, facing east or north-west, and remove the soil to a depth of 18 inches. At the bottom of the pocket lay rough 4-inch cubes of stone or brick, and on the top of these lay inverted turf, say, 3 inches thick. Mix a compost of a third coarse river sand, a

third sifted, well-decayed leaf soil, and a third fibrous loam torn into small fragments. Add enough half-inch limestone chippings to keep the compost open. Lay 8 inches of the latter on the turves, and then take the plants and carefully spread out the rootlets horizontally, finally covering up with the same soil.

Before and after winter it may be necessary to top-dress; but both at that time and when first planting take care to avoid burying the dormant growths too deeply, which is a common cause of "damping off." Lightly cover up with Fir or Yew branches for the winter, removing them before the young growths are at all drawn by them, which in the North of England will probably be necessary about the end of April.

To show how such methods suit this Orchid, I may mention that I moved a plant in the late summer of 1913, as its position seemed insufficiently drained and it was not doing well. It only carried two flowers that season, and consisted of seven or eight growths. I replanted it in the manner before described, and last year it greatly improved and made many strong growths, though the flowers were killed by a late May frost. This season it pushed up nineteen growths, and they carried twenty-one fine flowers. I have never seen *C. Calceolus* growing so freely as this when planted as so often recommended.

As regards the best position, whether in sun or shade, I can only say that such plants as I have seen growing in the wild state have been in open, airy woods, but with a canopy of shade overhead. I find by a note written in July, 1910,

HYBRID LILIES.

THE appearance of a good hybrid Lily (Amos Perry) at the recent Holland House Show is sufficiently rare to call for a few general remarks on hybrid Lilies. Some very fine and interesting crosses have been obtained, but the bulbs, in a few cases at least, have been wanting in constitution, so that instead of becoming permanent occupants of our gardens, they have in time died out.

A case in point is furnished by *Lilium Parkmannii*, a hybrid Lily, which in its day aroused a great amount of interest. It was raised in the United States of America by a Mr. Parkman, and is said to have resulted from the crossing of *L. auratum* and a deep-coloured variety of *L. speciosum*, the latter being the seed parent. Some fifty seedlings were obtained, but only one proved to be distinct from *L. speciosum*. This one, which first flowered in 1869, partook greatly of the character of *L. auratum*, with a good deal of the colour of the best form of *rubro-vittatum* or *cruentum*. To this fine Lily the name of *Parkmannii* was given, in honour of the raiser thereof. Working up a stock was, of course, a slow process, so that it did not cross the Atlantic for some years. When it did so, however, the entire stock passed into the hands of Mr. Anthony Waterer of the Knap Hill Nurseries, whence it was several times exhibited, and on August 24, 1880, was given a first-class certificate by the



A VIEW IN A SMALL GARDEN IN BERKSHIRE.

that the only growths which had flowered that season on those patches referred to in the beginning of this article were well under a Hazel bush. The plants more exposed to the sun had not flowered that year. W. H. ST. QUINTIN.

Scampston Hall, Rillington, York.

Royal Horticultural Society. It would, however, appear to have inherited some of the erratic character of *L. auratum* itself, for it gradually weakened, and in time died out altogether. I have a note of seeing it at one of the meetings of the Royal Horticultural Society in 1890, but

do not remember seeing it since. Some years ago, on application to the firm, I was courteously informed that, as far as they knew, it was quite lost to cultivation.

L. kewense is another hybrid Lily that must, I think, be now spoken of in the past tense. This was an exceedingly interesting Lily, though not particularly showy, at least in the same sense as *L. Parkmannii*. The parents of *L. kewense* were *L. Henryii* and *L. Brownii* Chloraster, this last being the seed bearer. Strange to say, the flowers were a good deal like those of a small *L. auratum*, being of a creamy white, becoming paler with age, and having a suspicion of yellow down the centre of each petal. This was raised from seed, the result of a cross made in 1897, and the first flower opened three years later.

Of hybrid Lilies that have come to stay, and which are now well distributed in gardens, may be mentioned *L. Marhan* and its improved form

It is a vigorous-growing yet exceedingly graceful species, whose colour is well expressed by its popular name of the Nankeen Lily. The bright red anthers afford a marked contrast to the rest of the flower.

L. Beerensii is a very pretty hybrid Lily that I saw in flower at Messrs. Ware's just twenty years ago. It was the result of a cross between *L. chalcidonicum* and *L. testaceum*. The flowers were about the size of the last named, but of a brighter tone of colour. I have not seen *L. Beerensii* since, but a friend tells me he flowered the same cross last year, and that it quite agreed with my description of two decades since.

There is but little doubt that the members of the Isolirion, or upright-flowered, group cross with each other. At all events, some of the garden forms appear to me to be of mixed parentage.

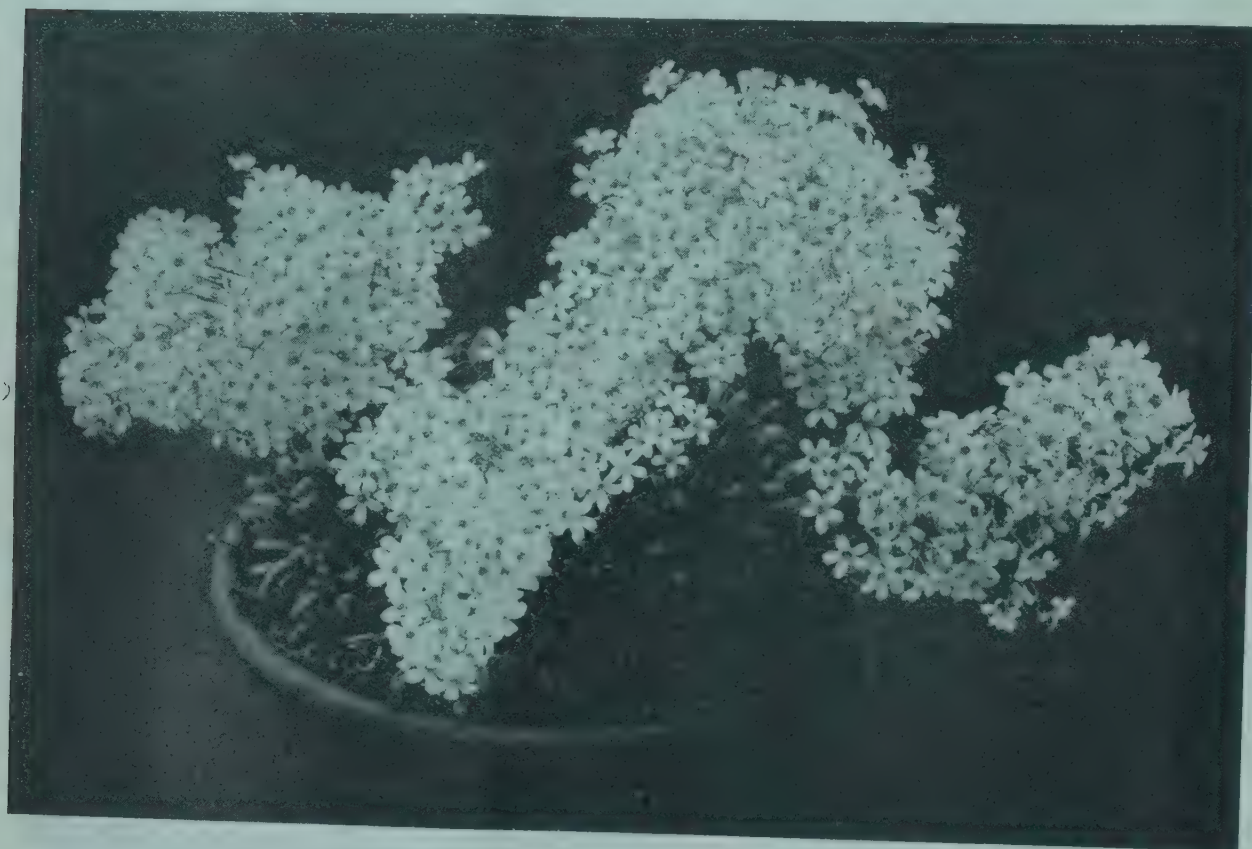
L. Golden Gleam, which came to us from across the Atlantic, is said to be the result of a cross

The foregoing does not profess to be a complete account of the different hybrid Lilies, but simply a few disconnected notes on some of the most important of those that have at one time or another come under my notice. H. P.

SAXIFRAGA LANTOSCANA SUPERBA.

BOTANICALLY, this is placed under *S. lingulata*, from which it differs in its shorter, blunter leaves, which are also less conspicuously encrusted, the size of the flowers, and the handsome, arching racemes.

S. lingulata (type) is characterised by exceptionally long, linear-acute, somewhat ascending leaves with conspicuously encrusted margin, that above named having shorter leaves, less encrusted; while the rosettes incline to reflex slightly. Taken all in all, it is one of the best of the June-flowering kinds, a good free-flowering sort, and generally one of the most desirable and tractable. The flowers are pure white, produced in dense, arching racemes from 6 inches to 12 inches in length, the latter rare rather than general. By reason of this arching character the plant is especially well suited to ornament highly placed ledges of rock, where, if colonised, it would show to advantage. It is also excellent for a rocky slope if placed near the line of vision. Without fastidiousness, it should be grown in very gritty loam, or this associated with broken limestone or sandstone, a good depth of which, with perfect drainage, suits the plant. About two months ago Mr. J. C. Allgrove, Langley, near Slough, exhibited the plant at one of the meetings of the Royal Horticultural Society, and from this plant the accompanying illustration was prepared. E. H. JENKINS.



A MAGNIFICENT PLANT OF SAXIFRAGA LANTOSCANA SUPERBA.

Ellen Willmott. *L. Marhan* is the result of crossing *L. Martagon album* with the Japanese *L. Hansonii*, both of which are among the most desirable of our garden Lilies. In *L. Marhan* the flowers are of a clear orange yellow, with reddish brown spots and streaks. An older hybrid, in the production of which *L. Hansonii* played a part, is *L. Da'hansonii*, the other parent being the dark-coloured form of *Martagon* known as *dalmaticum*. In this the main characters of the parents are blended in a curious way, the colour being yellow, heavily clouded with reddish brown. This has certainly become scarcer of late years. Though the early history of one of the finest of all outdoor Lilies, *L. testaceum*, known also as *L. excelsum*, is unknown, it is commonly regarded as a hybrid between *L. candidum* (Madonna Lily) and *L. chalcidonicum* (Scarlet Turk's-cap). It appears to have made its way to this country from Erfurt in the forties of the last century, since when it has become a permanent occupant of our gardens.

between *L. tenuifolium* and one of the *Martagons*. Though showing a considerable leaning to *L. tenuifolium*, it is more floriferous and robust, while the elegantly reflexed flowers are of a pure apricot yellow colour.

Under the name of *L. Burbankii* a mixed lot of Lilies was sent here from America about fifteen years ago. Traces of *L. pardalinum*, *L. Parryii*, *L. superbum* and *L. washingtonianum* may be found among them. Some are really good, but they should have been selected before they were put into commerce.

The last to refer to is that mentioned at the head of this article, namely, *Amos Perry*, which was raised from *L. Parryii* and *L. Humboldtii* magnifica. It shows, perhaps, more of the influence of the last-named parent, but the part played by *L. Parryii* is also markedly evident. The flowers are of a rich golden yellow colour, spotted inside with crimson. In the whorl-like arrangement of the leaves this hybrid resembles *L. Humboldtii*.

of a charming late-flowering perennial. To botanists it is now known as *Ceratostigma plumbaginoides*, but in gardens it is still familiar as *Plumbago Larpentæ*. It is a native of China, and was first introduced from the neighbourhood of Shanghai. It is so late in flowering, generally blooming in the colder districts in September and October, that it ought to have a warm and sunny situation. In these cold districts it is best on a sunny rockery or wall, and there, especially if between stones on rockwork, it should do better than anywhere else. The flowers are of a most delightful shade of blue, and as they come just before the plant assumes the most beautiful autumn tints in its foliage, the combination of the two attractions at the end of the season is exceedingly charming. In some places it does not prove hardy, and occasionally disappears through the effects of a cold spring. Sandy loam and peat, or, failing the latter, some well-decayed leaf-soil, will form a capital compost.

S. ARNOTT.

LADY LARPENT'S LEAD-WORT.

This is the attractive alliterative title

SOME NATIVE PLANTS FOR THE WATERSIDE.

DURING the scorching days of summer and early autumn, when our lawns are seared and almost devoid of foliage, and plants in beds and borders are showing obvious signs of distress, there are few more restful and interesting garden features than a stream or pool. Just how much quiet pleasure the owner of such a garden feature will derive from it will depend very largely on the vegetation that clothes its banks and runs down even into the water itself. During recent years considerable attention has been given to water-side gardening, but I am disposed to think that it has not all been in the right direction. The introduction of so many hardy plants that are obviously more at home in moist places than the herbaceous border has led to their extended use in places of wild or semi-wild character, quite irrespective of their natural habit of growth or the colour of their flowers, the result too often being garish patches of colour, and awkward stems and leafage, that cannot, by any stretch of imagination, be said to harmonise with their surroundings. This criticism must not be taken as an indication that I do not consider exotic plants suitable for the waterside—many are admirably adapted for such positions—but there are signs that sufficient restraint and care are not being exercised in their selection and planting.

A ramble through some marshy countryside a week or two ago, and the accompanying illustration, served to remind me that among our native plants we have a goodly host that are capable of creating beautiful pictures on the damp margins of our garden pools and streams, especially where these are of a natural and informal character. It may be urged by some that these wildings are weedy and difficult to keep within bounds, but practical experience does not bear this out. The painstaking gardener will see to it that one does not encroach too much on its neighbours, and will also be careful not to plant such kinds as the Willow-herb, which are certainly very hard to keep within prescribed areas. The plants shown in flower in the illustration are those of the Purple Loosestrife, *Lythrum Salicaria*, a beautiful native of our marshlands and damp hedgerows. Like a number of other simple hardy plants, it is most effective when planted in fairly large colonies, and, once a few roots are obtained, it is quite an easy matter to increase them by division at practically any time during the winter. A better garden plant than the wilding is named *L. S. rosea*. Instead of the purplish hue, we get in the flowers a pleasing shade of deep rose, while the sturdy, yet graceful, habit is fully maintained.

A curious fact about quite a number of waterside plants is that they will adapt themselves to ordinary border cultivation. The Loosestrifes mentioned are a case in point. Both will grow and flower quite well far away from water, though there is no gainsaying the fact that they are more at home by the margins of ditches, pools, or

sluggish streams. For several years I have watched with interest some plants of the common Water Flag, *Iris Pseudacorus*, that are growing in a suburban front garden. There, planted close up to a brick burr wall, where the soil must be more often dry than wet, these plants have flowered each year for the last three years, and possibly longer. It is, however, better by the waterside, where its stately, sword-like foliage and yellow flowers fit in so well with other vegetation.

Another beautiful native plant for the purpose now under consideration is the Loosestrife known as *Lysimachia thyrsiflora*. It grows about two feet or rather more high, and during July is always

beautiful with its dense clusters of yellow blossoms. It is a true sub-aquatic, and far better suited for the water edge than many of the exotics used for the purpose. The common yellow Loosestrife, *L. vulgaris*, though often grown in borders and comparatively dry parts of the wild garden, also thrives well by the waterside. In general appearance it is very much like *thyrsiflora*, but grows a foot taller. A dwarf member of this family, and one that will grow either in moisture or drought, is the Moneywort, *L. Nummularia*. It spreads rapidly over the soil, and from spring until well into the autumn is seldom without its large, bright yellow blossoms.



THE PURPLE LOOSESTRIFE EFFECTIVELY GROUPED BY THE WATERSIDE.

For the spring months there is not a more beautiful and pleasing plant than our native Forget-me-not, *Myosotis palustris*. It loves the moist soil by the water's edge, and once established will seed freely and perpetuate itself without further trouble, except to see that ranker vegetation does not, during late summer and autumn, smother the seedlings. Its blue flowers, peeping shyly through a loosely tangled mass of green stems and foliage, never fail to attract attention, and surely so lovely a wilding deserves a place in our water gardens. Flowering at much the same season, but in a more brazen manner, is the Marsh Marigold or Kingcup, *Caltha palustris*. Both its brilliant yellow flowers and large, glistening green foliage are handsome, and it is too well known to need any detailed description. The double-flowered variety should, however, be left well alone. It is not nearly so pleasing as

foliage, surmounted during July and August by large, plume-like heads of creamy white and deliciously fragrant flowers, creates such a picture of quiet beauty as few other plants, even the most expensive, are capable of.

Then what shall we say of the Bulrush, *Typha latifolia*? In a few good gardens one does see it thriving with its roots well into the water, but too often it is missing. Its tall, sword-like foliage is very handsome, and the dark brown inflorescences, produced so freely in autumn, are a source of attraction for a long period.

The Flowering Rush, *Butomus umbellatus*, with its umbellate heads of rose-coloured flowers, is another good native for the waterside; while everyone would surely wish to include the Sweet Flag, *Acorus Calamus*, the roots and leaves of which are deliciously fragrant. The Arrowheads, or *Sagittarias*, and the wild Campion are other

crimson, lined and reticulated with golden in the throat.

Cattleya Harold Fowler's Variety.—This is a very beautiful variety, sepals and petals being of the purest white, the bold, fringed lip broadly margined white, with conspicuous rosy purple blotch and yellow-touched throat. The whole of the foregoing were from Mr. J. Gurney Fowler's fine collection at Pembury, Tunbridge Wells.

Campanula Abundance.—The general effect of this is an enlarged Norman Grove, to which probably it has affinity. The plant is 6 inches high, the blue flowers, which are produced with considerable freedom, horizontally disposed above a modified *C. carpatica* habit of growth. From Messrs. J. B. Grove and Son, Sutton Coldfield.

The foregoing were exhibited before the Royal Horticultural Society on August 4, when the awards were made.



THE NEW CAMPANULA ABUNDANCE SHOWN IN LONDON LAST WEEK.

the wild plant, and provides an excellent example of a good flower spoiled.

Cowslips also ought to have a place by the margin of our pond or stream. Plant them rather high up on the sloping bank, so that they do not get flooded during the winter, and they will yield flowers nearly twice the size and with much longer stems than those growing wild by the wayside. Nature teaches us this when she encourages Cowslips in damp pastures, where they are always finer than in similar situations where the soil is dry. Our native Primrose also might well be associated with the Cowslips, and would in many cases be more appropriate to the surroundings than the vivid purple and orange exotic species now so largely used as semi-aquatics. In the Meadowsweet, *Spiraea Ulmaria*, we have a native that is quite at home with its roots touching the water. Its beautiful pinnate

native plants that occur to me as being eminently suited for positions such as are now under consideration.

F. W. H.

NEW AND RARE PLANTS.

FIRST-CLASS CERTIFICATE.

Cattleya Sybil Scintillant (*C. iridescens* × *C. aurea*).—The sepals and petals of this handsome hybrid are coloured old rose, the front lobe of the lip rich purplish maroon, which, ending abruptly, is continued in deep orange. A very beautiful and striking variety.

AWARDS OF MERIT.

Laelio-Cattleya Thyone Fowler's Variety (*L. C. Ophir* × *C. aurea*).—In this the sepals and petals are of golden hue, the heavily fringed lip reddish

DURING the last year or two the value of the Loganberry for preserving purposes has been fully realised, and it is by no means unusual to find the fruits offered for sale in shops as "Giant" and "Egyptian Raspberries." The plant is a rampant grower and will thrive in almost any soil, yet the majority of those who attempt to cultivate it do not get anything like the crop that a properly tended plant is capable of producing. This is due more to ignorance than to any wilful lack of attention. It should be fully realised that the fruit next year will be borne on the lusty young growths or rods that are being pushed up from the base this summer. The better these are ripened before the winter the better will be the crop next year, hence anything that can be done to bring that about ought not to be neglected. The growths that are fruiting this year have completed their work when the berries have all been gathered, and the sooner they are cut right out the better it will be for the young ones that remain. Too often they are allowed to remain until the winter, all the time deriving a certain amount of nourishment from the roots, and impeding the progress of light and air to the new shoots. After cutting away the old rods, the cultivator will probably find that there are more new ones than can be accommodated. If this is so the weakest ought to be cut away, retaining only sufficient of the sturdiest to furnish whatever support is available.

With Raspberries the same methods apply with even greater force. Too often I receive complaints of Raspberries being small and hard, the flowers in some instances refusing to set, and in others collapse of the canes after the flowering stage has been reached. In nearly every case this can be traced to immature rods or, in other words, only partial ripening the previous autumn. For many years now I have made a practice of going over the Raspberries early in June, cutting away the obviously weak and unwanted new shoots, leaving only the strongest and best. Then, immediately all the fruit has been gathered, the old canes are cut out and the new ones loosely tied in their places. The result by the winter is short, hard canes of a beautiful brown colour, and a heavy crop of luscious fruit the following year. H.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Figs.—With careful attention there should be no difficulty in keeping up a supply of fruit till late autumn. If the wood is kept well thinned out and the fruits thinned where they are too thick, the second crop will be of excellent quality, though smaller in size than the first crop. Keep the roots well supplied with moisture, but the atmosphere in the house must be kept dry when the fruits are ripening.

Pot Fig Trees.—The trees which are required for very early forcing must now be overhauled. In some cases repotting will be necessary, but overpotting must be avoided. Where the trees are in very large pots or tubs, they will go for several years without being disturbed, except removing as much of the surface soil as possible to make room for a top-dressing. A compost of loam, lime rubble, wood-ashes and crushed bones will be suitable. Ample drainage and firm potting are two important points to remember when carrying out this work.

Pot Vines.—The Vines which have been grown for fruiting next year will have made considerable progress, and attention must now be given to the ripening of the canes. Plenty of air, both top and bottom, must be given them during warm, congenial weather. Should a long spell of wet, sunless weather set in, it is advisable to use a little fire-heat to assist the ripening. When the Vines have made satisfactory progress, they may be placed outdoors in a sunny situation, plunging the pots in ashes. It is important to keep the foliage clean, therefore syringe with an insecticide occasionally.

Plants Under Glass.

Violets.—The soil may now be prepared for the planting of Violets in their winter quarters. Chopped loam and leaf-soil which has decayed naturally makes an excellent compost for the Violet. Oak or Beech leaves make the best leaf-soil. Keep all runners and weeds removed, and hoe between the plants frequently.

Pelargoniums.—The plants required for flowering during the late autumn and winter will now be well rooted, and a little stimulant may be given, but this must not be applied too freely till the flowering season arrives. Keep the flower-buds removed, and stop extra strong shoots.

Schizanthuses.—A small sowing may be made for raising plants for flowering in the early spring. Schizanthuses require cool treatment throughout, and, if possible, the pots should be stood on a base of ashes. There are now several types of this beautiful annual, and each has its claims for recognition.

The Flower Garden.

Hollyhocks.—The disease which is more or less always present on these stately plants may be prevented to some extent by raising plants annually from seed. The seed may either be sown in the spring or at the present time. If sown now, the seedlings may be wintered in cold frames and planted out in the spring.

Violas.—To keep the plants flowering all through the season, the dead blooms must be regularly removed. A sprinkling of well-seasoned soot or artificial manure during showery weather or previous to watering will assist them to flower. Cuttings may be inserted now in sandy soil in a cold frame. Keep the frame close and shaded till the cuttings are rooted; then gradually inure them to light and air.

Pelargoniums.—Cuttings of these must now be taken for next season's stock. If care is exercised in removing the growths, the beds need not be unduly robbed of their beauty. The cuttings may be inserted in boxes of sandy soil and placed outdoors in a position which is sheltered from the midday sun.

The Water Garden.—Dead flowers and leaves must be regularly removed. Weeds usually grow rampant in and around ponds containing choice water plants, and if not rooted out early they will quickly smother the plants. Seeds of *Primula*

japonica and *P. pulverulenta* may be sown when ripe. In suitable soils and situations these *Primulas* will become naturalised.

The Hardy Fruit Garden.

Raspberries.—When all the fruits have been cleared, cut out all the old fruiting canes so that the young growths may become thoroughly ripe. The young growths will also require thinning where they are too thick. The autumn-fruiting varieties must be well supplied with water, and if not already done, a mulch of rich manure should be placed over the roots.

The Kitchen Garden.

Late Peas.—Plenty of water must be given to Peas at this season, or the pods will fail to fill. If late Peas are not mulched, an effort should be made to do this now, as then there will not be so much water needed. After a hot day it is a good practice to sprinkle the plants with rain-water late in the afternoon.

Spinach.—Make sowings of this valuable vegetable at intervals till the end of the month. This crop needs a deeply tilled and well manured piece of ground. The surface must be well broken up and thoroughly raked over before sowing the seed.

Cabbage.—The last sowing of Cabbage may now be made. An open situation should be chosen for this purpose. It is sometimes necessary to place netting over the seed-bed to keep off birds.

Lettuce.—Small sowings of Lettuce must be made till the end of the month. Brown Cos and Hardy Hammersmith are two of the most reliable varieties for late sowing.

Endive.—If rough frames are available, a sowing of Endive may be made now for the winter. Shallow frames are the best for this purpose.

Parsley.—A sowing of Parsley may be made now for pricking into cold frames.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

The Flower Garden.

Pinks.—If fresh stock is required, cuttings should be got in now. If a close frame is available, they are not difficult to root. Fill the frame with soil to within 6 inches or 8 inches of the top and cover with sand. After dibbling in the cuttings closely together, keep them shaded and fairly moist. Some growers layer Pinks, but as they are so easily propagated from cuttings, this system would mean endless time spent on a very tedious operation.

Climbing Roses.—Any which have finished flowering should now be pruned, cutting out any old growths which can be replaced by young shoots. Do not tie in too many, but leave sufficient space for each to ripen and where it may have room to show off its flowers another season. Tarred twine of medium thickness should be used; it will then remain in good condition for two years and will not quickly rot or decay.

Zonal Pelargoniums.—A start should be made by taking cuttings for next season. Where large numbers are required, they are best put in boxes, as these are more easily handled if, during the winter, circumstances necessitate their removal. The soil used ought to contain plenty of sand. Place in frames if the weather is wet, but do not shade. If the weather is fine, simply place them out of doors in full sun.

Plants Under Glass.

Mignonette.—Seed should now be sown if Mignonette is to be had in flower during March and April, a time when this fragrant flower is usually appreciated. If cultivated with ordinary care, it is not difficult to manage if one has got a cool and frost-proof greenhouse where it can be well ventilated during mild weather. It resents much artificial heat, and is, therefore, best kept in a cold frame until November. Much time will be saved by sowing the seed thinly in 3-inch pots and thinning out when the seeds

have germinated. Matchet is the most suitable variety for cultivation in pots.

Cinerarias must not be allowed to starve in the 3-inch pots, but be moved on as soon as ready into their flowering pots, either 6-inch or 7-inch being the size generally used. If insect life is present, either spray with insecticides or fumigate.

Fruit Under Glass.

Peaches and Nectarines.—Trees which were cleared of their fruit in June and are to be restarted in December for another season must now be well looked after if next year's crops are to be a success. The growths should be allowed ample space to ripen and develop the buds, which can only take place where the foliage is not crowded. Water must be given frequently, as these trees require a copious supply until the leaves show signs of ripening. Insect pests must be kept in check, so that the trees may start with a clean growth in the spring.

Houses Containing Ripe Fruit should be kept somewhat drier, and water only applied to the roots if necessary. Too free a use of water at this stage ruins the flavour of the fruit. Picking the fruits daily as they ripen is much better than erecting nets to catch the dropping fruits, which more often than not become marked and, therefore, ruined for dessert.

Early Vinery.—To assist in the ripening of the wood, the laterals can be shortened back to about half their length. This, of course, is not necessary when the wood is already well ripened.

The Hardy Fruit Garden.

Strawberries.—The planting of young Strawberries should be proceeded with as soon as they are ready to be detached from the parent plants. If the runners were pegged down in pots early, fruit may be expected from this plantation in the first season. Be careful not to cover the crowns of the plants, as this is harmful. Unless the weather is moist, the plants require water frequently until they become established in their permanent quarters.

The Kitchen Garden.

Potatoes.—A good number of varieties are ready for lifting. As it is important that every available piece of ground should be planted or sown with winter vegetables this year, there should be no delay in lifting the crop as soon as it is ready. A dry day should be chosen if possible, so that the tubers can be collected as free of the soil as possible. If the weather is unsettled, no more should be unearthed on any one day than can be got under cover. Diseased tubers must be carefully picked out and taken away from the garden, when there will be no danger of contamination.

Onions.—The feeding should now cease, in order to allow the bulbs to mature in readiness for lifting later on. Any not showing signs of maturity should have the foliage bent over carefully to help in the checking of further growth. The hoe should still be used freely and all weeds removed, as this will be a useful piece of ground on which spring Cabbages may be planted next month.

Cauliflowers.—Sow some seed to produce plants for wintering in frames for early spring planting. Choose a piece of ground which is not very rich, as small plants invariably survive the winter best. This must be followed up by another sowing ten or fourteen days later.

Spinach.—A large breadth must now be sown with Winter Spinach. It is very important that the plants should not suffer for want of moisture. If the ground is dry at the time of sowing, water the drills before putting in the seed. The ground should be fairly rich, and must be well dug over in advance.

Lettuces.—Good sowings must now be made to obtain plants to stand the winter. Brown Dutch, Bath Cos and Stanstead Park are all varieties which are both hardy and reliable. As slugs get very troublesome at this season, means of prevention must be adopted.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

HOW TO SUCCEED WITH PERSIAN CYCLAMEN.

THIS is not an easy plant to manage, but the pleasure of having a really fine display more than compensates for the trouble entailed in its culture. For quite a number of years I have enjoyed very fair success, and perhaps a few details regarding my cultural methods may be helpful to some of the readers of *THE GARDEN*. I am fully convinced that in a great number of cases the seeds are sown at the wrong time, and this seriously handicaps the grower from the start.

When to Sow.—After many experiments I am certain that about the middle of August is the ideal time for this. Select clean 9-inch pans, crock with extra care, and use fairly light soil. Personally, I favour a mixture made up of three parts of fresh loam, two parts of brown peat, one part of sweet leaf-mould, and one and a-half parts of clean sharp sand. Some small pieces of charcoal should also be added, which help materially in keeping all sweet. Pass through a quarter-inch riddle and place a good layer of the rough portion over the crocks. Make the compost only moderately firm.

Sowing the Seeds.—Make the surface quite level; then scatter the seeds very thinly and evenly. Indeed, it is as well to plant the seeds singly about an inch apart, as this ensures the seedlings having abundance of room from the first. Cover to a depth of about a quarter of an inch, and press down gently but evenly, leaving the surface smooth and level. Give a good watering through a fine rose, or else dip the pans to the brim in a bucket of water for a few minutes. Cover each pan with a sheet of glass and a piece of paper, and set in a moist pit with a temperature of 65° to 70°. As soon as germination takes place, remove the paper and tilt the glass a little. In a short time the glass can be removed entirely and the pans set on a shelf near the glass, but shade from bright sunshine for a time. The pans should be wintered in the same, or a trifle lower, temperature; but by the middle of January it is advisable to remove to a house having a night temperature of about 55°.

Pricking Off.—This must not be attempted too early. As a rule, it is best to postpone the operation until the little plants have each produced four leaves. Very similar soil should be used and clean 2-inch pots. A slight sprinkling of Ichthemic Guano may be added to the soil. Pot very lightly, and see that the little bulb is half out of the soil. The little pots should be stood in shallow boxes, with a layer of sifted leaf-mould in the bottoms to ensure a cool and moist base. Give a good watering through a fine rose to settle the soil, and afterwards sprinkle lightly overhead morning and evening with tepid clean water.

Repotting.—As soon as the little pots are well filled with roots, but before they are actually pot-bound, a shift should be given, the strongest plants into the 4-inch size and the others into 3-inch pots. Similar compost, but used in a slightly rougher state, and with the addition of some bone-meal and a little of Thomson's Plant Manure, will be excellent. Continue to sprinkle overhead twice daily, and shade carefully from all direct sunshine.

The Final Potting.—After the roots are running freely round the sides of the pots, the final shift

must be given, as it is unwise to allow anything like a check, which might ensue if the plants become pot-bound. Use very fibrous loam and brown peat in nearly equal proportions, with a little sweet leaf-mould and sharp coarse sand. The addition of a small quantity of dry cow-manure is an improvement; while a 6-inch potful of bone-meal and a 5-inch potful of Thomson's Plant Manure should not be omitted. The idea is to produce a nice light, springy compost and the avoidance of too much sand, as the latter has a tendency to encourage the attacks of the Begonia mite. Pot lightly and keep the tops of the bulbs well above the soil. Water thoroughly and return to the same house for a few weeks, sprinkling overhead twice a day as before. Personally, I prefer to keep the plants in a pit or greenhouse, where they are constantly under the eye; but a cold frame is an excellent place for them during June, July and August. Shading is of the greatest importance, but it must not be too dense, and it is not advisable to have it of a permanent nature. While overwatering must be carefully avoided, at no time should the soil be allowed to become dry.

Subsequent Treatment.—After the flowering pots are well filled with roots, very gentle feeding should be systematically given. Weak liquid manure made from sheep-manure is excellent, and nothing is better for the Cyclamen than liquid made from Ichthemic Guano. A tablespoonful well stirred into a gallon of water is the proper quantity, and may be given twice a week. The Cyclamen, although it resents cold draughts, must have abundance of fresh air on every favourable occasion.

If the cultural details here given be scrupulously carried out, there is but small chance of vermin attacking the plants. The most to be feared are the Begonia mite and thrip. Green fly, too, is sometimes troublesome. An occasional vaporising with XL All will keep all these at bay, and as it is always easier to keep plants clean than to make them clean after the enemy has secured a footing, this periodical vaporising is a very economical proceeding. Plants treated as advised will come into bloom in November or December and continue in beauty until March or April.

C. BLAIR.

Preston House Gardens, Linlithgow.

NEW PERPETUAL-FLOWERING CARNATIONS.

THE following varieties have been registered with the Perpetual-flowering Carnation Society during the past half year:

General Joffre.—A scarlet sport from Lady Northcliffe. Raised by Mr. G. Clarke, Leighton Buzzard.

Chelsea.—A seedling, white, pencilled pink. Raised by Mr. A. F. Dutton, Iver.

King Albert.—A seedling, deep satin pink. Raised by Mr. A. F. Dutton.

Lord Kitchener.—A seedling, purple, striped crimson. Raised by Mr. E. H. Coleman, Bognor.

King of the Belgians.—A seedling, deep crimson. Raised by Mr. E. H. Coleman.

Peace.—A pure white sport from Lady Meyer. Raised by The Newport Nurseries, Essex.

Louvain.—A seedling, bright rosy salmon. Raised by Mr. A. F. Dutton.

Mrs. W. L. Ainslie.—A seedling, salmon pink. Raised by Mr. W. Hemus, Hanworth.

Flaming June.—A sport from Mikado, geranium cerise. Raised by Messrs. Young and Co., Cheltenham.

Souvenir.—A seedling, pale rose 'sa'mon. Raised by Messrs. Young and Co.

Shepherdess.—A seedling, rich salmon. Raised by Messrs. Young and Co.

Golden Flag.—A seedling, yellow, pencilled red. Raised by Messrs. Young and Co.

Mrs. J. L. Cross.—A sport from R. F. Felton, pink, flaked deeper pink. Raised by Mr. W. J. Dance, Calthorpe Tower Gardens, Rugby.

Provisional registration:

Averill Furness.—A sport of R. F. Felton, blush, suffused and flaked rosy cerise. Raised by Mr. R. Barnett, Grantley Hall Gardens, Ripon.

Arrangements for the show on December 8 are now in hand, and the schedules will be published as soon as possible. By joining at this date, new members are entitled to all privileges until November, 1916. Subscriptions from unpaid members are urgently needed.

Orpington. T. A. WESTON, Hon. Secretary.

HORTICULTURAL RELIEF FOR SERBIA.

IN accordance with the recommendation of Mr. Henman, the society's Special Commissioner to Serbia, the Council of the Royal Horticultural Society decided at its last meeting to send out to Serbia seeds to the value of £500. The order for the seeds was placed with Messrs. Hurst and Son, and, thanks to the personal interest which Mr. Edward Sherwood has taken in the scheme for relief, the total of seeds sent, as will be seen from the following list, is a very considerable one. The seeds were sent out by a boat belonging to the Johnstone Line on August 8, and are consigned to the President of the Co-operative Union in Serbia. This gentleman has given a strict undertaking to see that the ship is met by a trustworthy agent at Salonika, and to use the resources of the Co-operative Union for the impartial and thorough distribution among the small Serbian farmers. It is largely owing to the energetic action of Mr. Arthur Sutton, the Rev. W. Wilks, and other members of the sub-committee appointed to deal with the immediate needs of Serbia, that the task of discovering exactly what the needs were and of contributing towards their satisfaction has been discharged so promptly. When it is remembered that the needs of other of our Allies—for example, Belgium—are even greater, there is good hope that the appeal of the Royal Horticultural Society for contributions to the Allies War Relief Fund will continue to meet with an increasing measure of support. Subscriptions, large or small, to this Fund may be sent to the Treasurer, Royal Horticultural Society, Vincent Square, S.W.

List of seeds sent to Serbia: 20cwt. of Mangel Long Red, and 10cwt. each of Mangel Yellow Intermediate and Mangel Yellow Globe; 10 bushels each of the following Peas—Bountiful, Pilot, Essex Star, Fillbasket, Senator, Alderman and Ne Plus Ultra; 60lb. of Broccoli Purple Sprouting, 25lb. of Broccoli Self-Protecting, and 15lb. of Broccoli Late Queen; 50lb. of Brussels Sprouts Covent

Garden; 25lb. each of the following Cabbage—Offenham, Rainham, Leeds Market and Enfield Market; 50lb. each of Cabbage Small Drumhead and Cabbage Large Drumhead; 25lb. each of Cauliflower Walcheren and Cauliflower Autumn Giant; 50lb. each of Carrot Nantes and Carrot St. Valery; 50lb. of Kohl Rabi Fine Top Green, 2cwt. of Spinach Long-Standing Prickly, 2cwt. of Onion White Spanish and 1cwt. of Onion Flat White Tripoli, 1cwt. of Leek Flag, 2cwt. of Kale Thousand-headed, 1cwt. of Beet Turnip-rooted, 2cwt. of Turnip Green Globe, 1cwt. of Turnip Fosterton Hybrid, ½cwt. of Onion Giant Rocca, 13qr. of Wheat, 6qr. of Barley, 10qr. of Oats, 6cwt. of Red Clover, 4cwt. of Lucerne, 5cwt. of Italian Rye-grass, 6cwt. of Winter Tares, 1cwt. of Spinach Beet, and 6cwt. of Perennial Rye-grass.

ANSWERS

TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

CARNATIONS FAILING (E. T.).—The Carnations are attacked by the spotted snake mite, which is feeding inside the stems and completely destroying their tissues. No doubt it has gained an entrance from the new soil, and it would be unwise to propagate them from the stock which is infested. Liming the soil is an important aid in keeping it free from the pest.

PROPAGATING ECHEVERIA METALICA (F. W. H.).—If you have two or three old plants of *Echeveria metallica* and grow them on in a sunny part of the greenhouse, they will probably flower. Then, if care is taken to pollinate the blossoms, seeds will in time be produced, from which young plants can be readily raised. By this means large quantities can be obtained, but in order to get a limited number there is another course which can be followed. If the plant is tall, the top may be taken off, potted into some sandy soil, and stood on the greenhouse shelf till rooted. The soil must be kept slightly moist, but care should be taken not to give too much water. From the old stem young shoots will be pushed out, which, when large enough, may be taken off as cuttings. Furthermore, single leaves will in time form plants if they are stripped off from the stem with a side pull. They must then be dibbled into pots of sandy soil exactly as cuttings are treated, and stood on a shelf in the greenhouse, being very careful as regards watering. In time a young plant will be produced from the base of the leaf, and it may then be grown on in the usual way.

TREES AND SHRUBS.

FORSYTHIA NOT FLOWERING (L. Couper).—It is probable that the flower-buds of your *Forsythia suspensa* are picked out by birds during the winter, or the plants may have been pruned at the wrong time. Pruning should be done about the end of April, as soon as the flowers fade, and when plants are growing against walls or trellises it is usual to cut the flowering branches back to within two or three buds of the base. The new shoots should be left full length. Pipings of Pinks may be taken at any time between the death of the flowers and the end of August, the earlier the better. Dibble them into sandy soil in a close frame, or cover them with a hand-light.

RHUS NOT FLOWERING (T. Q.).—The specimen sent for examination is the Venetian Sumach (*Rhus Cotinus*). The inflorescence is quite normal for the present time of the year. The flowers are really over. They are very small, and have doubtless passed unnoticed. After the fall of the flowers the hair-like stalks, together with numerous flowerless fibres, develop into a large feathery

head, among the fibres of which the small seeds are borne. In many respects these feathery heads of old flower-stalks are the most decorative feature of the plant. As a rule, male and female flowers are borne on the same specimen in this species, but not in all kinds of *Rhus*. By reason of the large heads of fibrous flower-stalks the plant has been known as the Wig Tree.

ROSE GARDEN.

PERNETIANA ROSES (Cicero).—We presume you mean this group, as you mention Juliet. You will find the following first-rate: Mme. Edouard Herriot, Cissie Easlea, Louise Catherine Breslau, Arthur R. Goodwin, J. F. Barry and Willowmere.

GROWTH ON DOG ROSE (Miss N. H.).—The Rose has the curious gall called the Bedeguar gall upon it, sometimes also called Robin's Pincushion. It is due to the laying of eggs by a gall fly in the Rose shoot, which not only causes a swelling in which the larvae which hatch from the eggs live and feed, but the growth of numerous hairs over the surface of the swelling, which, turning red in autumn, form a very pretty object in the hedgerows, quite common in many districts.

THE GREENHOUSE.

OPINION ON HYDRANGEA (W. S. P.).—The *Hydrangea* of which a flowering spray was sent is not the ordinary kind, but the variety *japonica*. In this last the large sterile blossoms, which form the most conspicuous feature of the inflorescence, are limited to a scattered few, whereas in the case of the common *Hydrangea* (*H. Hortensia*) they form a compact head or cluster. If you desire this last, it will be useless to take cuttings from your plant of *japonica*, as this variety will simply be reproduced. There is no malformation in the specimen sent, it being characteristic of the variety *japonica*.

INSECTS ON ROOTS OF CACTI (F. W. Hull).—If your Cacti are firmly potted, it is very probable that the woolly aphid is limited to the roots that are on the outside of the ball of earth. So situated, they congregate in the spaces that are sure to occur between the soil and the side of the pot. If so, they may be destroyed by turning the plant out of its pot without disturbing the ball of earth, and applying a little methylated spirit by means of a soft brush. As the eggs are often deposited in the irregularities within the pots, they should be scalded out before the roots are again replaced. Should the roots in the centre of the ball of earth be affected, the plants must be shaken clear of the old soil, the roots cleaned with methylated spirit, and the plants repotted in fresh compost. There are different soil fumigants that may be safely used in the open ground, but we should hesitate before recommending their employment in a case like this.

KITCHEN GARDEN.

CUCUMBERS GOING YELLOW (A. P.).—We suspect something wrong at the roots of the plants, preventing the free absorption of water, or insufficient or improper ventilation, to be the cause of the yellowing of the Cucumbers.

TOMATOES A BAD COLOUR (Dorothy, Edge Hill).—The Tomatoes are ripening irregularly owing to lack of potash in the soil. Potash is essential to the proper ripening of fruits of all kinds, and it would be well to water the soil in which your plants are growing with a solution of potassium sulphate at the rate of half an ounce to the gallon of water once a week. In making up your compost another time, the addition of wood-ashes would be an advantage.

MISCELLANEOUS.

WEED ON LAWN (Dr. G. Hales Parry).—The weed sent for identification is the common Yarrow or Milfoil (*Achillea Millefolium*). It cannot be easily destroyed, and the best method to adopt is to remove turves in the worst areas and make up with clean new turves. Elsewhere, weed out as much as possible and remove young plants as they appear. Three tons of marl will make a good dressing for your lawn. It ought to be applied during early autumn, or as soon as play is ended for the year.

GARLIC IN WOODS (Woodland).—The best way to kill the Garlic in your woods is to chop the leaves down with a hoe as soon as they appear above the ground. By doing this several times during the spring and early summer the plants will be weakened and gradually killed. To be effective, however, the leaves must never be allowed to grow to full size. As you evidently wish to prune your Hollies fairly severely, it would be advisable to do the work in spring. April is a good time, for young shoots will then be formed quickly. If pruning were done in the autumn, the bushes would look ugly all the winter.

NAME OF FRUIT.—R. M. E. Y.—The Gooseberry is *Roseberry*, a variety that ought to be better known.

NAMES OF PLANTS.—William Grant.—1, *Cimicifuga racemosa*; 2, *Verbascum Thapsus*; 3, *Stachys grandiflora*; 4, *Campanula rapunculoides*; 5, *Geranium sanguineum*; 6, *Rose*, probably Duke of Edinburgh. *Arbutus*.—1, *Pyrus terminalis*; 2, *Tilia tomentosa*; 3, *Abies nobilis*.—C. C. F.—1, *Juncus maritimus*; 2, *J. glaucus*; 3, *Scirpus lacustris*; 4, *S. maritimus*.—C. W. D.—*Statice sinuata*.—E. F. Chawner.—*Mitraria coccinea*, quite hardy in sheltered positions. —M. P.—Tulip Tree (*Liriodendron tulipifera*). —*Saturnia*. —*Hedera Helix* var. *conglomerata*.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

IN no sense was the fortnightly meeting of the 4th inst. of an overflow character, though there was much to interest and admire. Most interesting, perhaps, was the almost unique collection of scented *Pelargoniums* from Elstree, while the *Gladioli* from Langport constituted a feature alone. Apart from these were great banks of herbaceous *Phloxes*, and in all probability these showy summer flowers have never been better staged. Fruit (Apples) was represented by collections from New Zealand and Hounslow. There were three collections of *Orchids* and several good novelties on view.

FLORAL COMMITTEE.

Present: H. B. May, Esq. (chairman), and Messrs. C. T. Drury, E. A. Bowles, J. Green, F. W. Harvey, G. Reuthe, G. Harrow, J. W. Moorman, W. Howe, J. F. McLeod, T. Stevenson, J. Jennings, C. Dixon, J. Dickson, H. J. Jones, A. Turner, C. E. Shea, C. E. Pearson, W. P. Thomson, E. H. Jenkins, J. T. Bennett-Poë, W. Cuthbertson, G. Paul, W. G. Baker, J. Hudson, C. R. Fielder and W. J. Bean.

Quite a unique exhibit of the scented *Pelargoniums* came from the Hon. Vicary Gibbs, Elstree, Herts (gardener, Mr. E. Beckett). Arranged on the floor opposite the entrance, it attracted attention by its variety, completeness and extent, the latter running into some 400 superficial feet. Practically every known kind in cultivation was to be found in the group in either standard or bush form, and, margined by the well-known and popular silver-leaved variety *Lady Plymouth*, constituted an interesting feature of the meeting. Prized for their leaf fragrance rather than for flower beauty, many find pleasure in cultivating the more select kinds for the purpose named, and they are certainly among the oldest of greenhouse favourites. A large collection was staged, and we have no desire to publish a long list of the many varieties shown; hence a few names of the more distinct must suffice. Of these we take at once the very interesting, though almost leafless, *P. tetragonum*, whose curious stem growth renders it striking and distinct, though not beautiful; *P. betulinum*, *P. echinatum*, *P. artemisiifolia*, *P. Shottii* (with woolly leaves and crimson flowers), *P. saxifragoides* (a trailing species with pink flowers, for which the specific name of "*hederifolia*" would, we think, be far more appropriate), *P. glaucum* (almost *Corydalis*-like in leaf and with greenish yellow flowers) and *P. terebintha* as the more conspicuous examples. *P. tomentosum*, *P. Clorinda*, *P. Rollinson's Unique* (an old, much-esteemed sort), *P. denticulata*, *P. citriodorum*, *P. crispum* in variety, *P. pinnatum* and the "Pheasant's Foot" were others of beauty and interest. A silver-gilt Flora medal was awarded.

Messrs. James Kelway and Son, Langport, displayed a superb avenue of *Gladioli*, the extent of the exhibit, in conjunction with almost endless variety, constituting quite a feature. We were particularly struck by the beauty and grace of the new *primulinus* hybrids, to which the group name of "*Lang-prim*"—of rather doubtful euphony—has been given. Some of the best of these were *Ella Kelway*, *Wrath*, *Sylph*, *Friendship*, *T. W. Sanders*, *Mrs. Crane*, *Josephine Kelway* and *Banshee*. Of the large-flowered set (hybrids of *nanceianus*, *Childsii* and *Lemoinei*) *Mrs. F. Field* (cream, blotched crimson), *Blotch* (white and crimson), *Queen Mary* (ivory white with dark blotch) and *Mrs. Asquith* (a very distinct blotched variety) were among the best. Others of merit and distinction included *Dido* (of intense crimson hue), *Cecilia Kelway* (salmon, rose, crimson and yellow, very distinct), *Crown Jewel*, *Indomitable*, *Indiana* (deep maroon); *Dick* (mauve, violet and purple), *Happy Match*, *Golden Ray*, and *Favour* (scarlet, freckled with white). Silver-gilt Banksian medal.

The Misses Hopkins, Shepperton-on-Thames, showed a small collection of alpine and herbaceous plants with *Violas*.

Messrs. H. B. May and Son, Edmonton, contributed an excellent table of Ferns and flowering plants, the former largely in the majority. Of these the varied forms of *Nephrolepis* were much in evidence, such well-marked sorts as *N. elegantissima compacta* and *N. Wredii* appearing in prominent groups. *N. Willmottii*, the most mossy and diminutive of all, was particularly well shown, with *Adiantums* and many others. White and red *Lapagerias* were very finely displayed. Silver Banksian medal.

Messrs. Stuart Low and Co., Enfield, staged an excellent exhibit of *Streptocarpus* and *Gloxinias*, together with a fine grouping of *Nerine Fothergillii* major. *Solanum Wendlandii* was also good, and *Clethra arborea* variegata pleasing in flower.

Mr. James Douglas, Great Bookham, again staged a superb lot of Carnations. Bookham White, *Mrs. Griffith Jones* (buff), *Mrs. George Marshall* (crimson), *Passquin* (fancy), *Daffodil* (the best yellow), *Elizabeth Shiffner*, *Solfaterra* (yellow), *Linkman* (good yellow-ground fancy) and *Edenside* were among the best. Silver Flora medal.

Mr. Reginald R. Cory, Duffryn, sent a collection of *Peony*-flowered *Dablias*. *Myrtus Luna* (syn. *Eugenia apiculata*) came from the same source. It forms a handsome bush, covered with white-cupped flowers. A cultural commendation was awarded.

Campanula R. B. Loder is a pretty semi-double flowered hybrid of very dwarf habit and great freedom. It was sent by Mr. Reginald Prichard, West Moors, Dorset, and is full of promise.

Some charming flowering examples of *Tecoma grandiflora* were sent by H. R. H. the Duchess of Albany, Claremont (gardener, Mr. J. S. Kelly). They were greatly admired. A cultural commendation was awarded.

Messrs. Rich and Co., Bath, displayed a liberal collection of Phloxes, of which Meteor, Le Mahdi, Frau A. Buchner and Europa were among the best.

Messrs. W. Cutbush and Son, Highgate, N., had an excellent exhibit of the new Ivy-leaved Pelargonium Radiance. It is very brilliant in colour and profusely flowered.

Mr. G. Reutho, Keston, Kent, had an interesting lot of plants, both alpine and shrub. Of the former, Campanula Tymosii, C. Raineri and C. Stansfieldii were very beautiful. Astilbe simplicifolia was most charming. Desfontainea spinosa (in scarlet and gold), Bravoa geminiflora, Sparaxis pulcherrima and Veratrum nigrum were other notable plants. Bronze Banksian medal.

Messrs. H. J. Jones, Limited, Lewisham, brought an excellent exhibit of herbaceous Phloxes, for which a silver-gilt Banksian medal was awarded. The trusses were particularly clean and fresh-looking. Among new varieties, Mrs. A. W. Alder (shell pink) and Violet Guest (rich salmon, dark eye) were the best. Widar (Parma Violet blue), Rijnsdroom (salmon scarlet), The Queen (white, purple eye), Mme. Paul Dutrie (soft pink), Goliath (carmine, immense size) and General van Heutsz (very brilliant) were all excellent.

Mr. J. C. Allgrove, Middle Green, Langley, had an extensive exhibit of Roses—quite a remarkable grouping, considering the wet that had been experienced. Lyon Rose, Mme. Ravary, General Macarthur, Mrs. A. Ward, Rayon d'Or (quite a glorious display), Mme. Edouard Herriot, Lady Hillingdon and Mme. Abel Chateau were among the finer sorts. A feature of the group was a delightful lot of the violet-coloured Thalictrum dipterocarpum, without doubt one of the finest hardy plants extant. Silver Flora medal.

Mr. James Box, Lindfield Nurseries, Hayward's Heath, had a superb grouping of herbaceous Phloxes, probably one of the finest seen this year. Arranged in formidable groups, the whole constituted a bank of colour such as is rarely seen. Albert Vandel (violet blue), Arthur Rane (salmon), Dr. Königshofer (brilliant orange scarlet), Sofie Cordes (soft lilac), Jules Sandeau (cerise), Le Mahdi (which variety formed a huge centre-piece), Mrs. E. H. Jenkins, Frau Antonin Buchner, Fraulein von Lassberg (the finest whites) and Dr. Charcot (dark violet) were some of the finer in a very imposing display.

Mr. W. Wells, jun., Mersham, also had a capital exhibit of Phloxes, such as Dr. Königshofer, Le Mahdi, Europa, Selma, Meteor, G. A. Strohlein, Frau Antonin Buchner, Elizabeth Campbell and other excellent sorts being well staged.

FRUIT AND VEGETABLE COMMITTEE.

Present: A. H. Pearson, Esq. (chairman), and Messrs. J. Cheal, George Woodward, G. Kelf, A. Bullock, P. D. Tuckett, J. Jacques, Owen Thomas, E. A. Bunyard, Edwin Beckett, J. Harrison, A. R. Allan and H. H. Williams.

Messrs. S. Spooner and Sons, Hounslow, showed a select lot of Apples, such as Early Victoria, Red Quarrenden, Early Red Margaret, Beauty of Bath, Lady Sudeley, Gladstone, Ruddy (a fine-looking sort), Irish Peach, Worcester Pearmain, White Transparent and many others. A dish of fruits of the Strawberry-Raspberry was also on view.

The Tonkins Trustees, Treliske Orchard, Ettrick, Otago, New Zealand, also staged an exhibit of Apples, remarkable for size and good colouring. Scarlet Nonpareil, Cleopatra (yellow-skinned variety), Esopus Spitzenberg (very richly coloured), Jonathan, Delicious, Munroe's Favourite and Rome Beauty were among the more conspicuous in a very telling lot.

ORCHID COMMITTEE.

Present: J. Gurney Fowler, Esq. (chairman), and Messrs. J. O'Brien, Gurney Wilson, W. Bolton, R. Brooman White, Pantia Ralli, R. Thwaites, J. Charlesworth, Arthur Dye, S. W. Flory and F. Sander.

Messrs. Sander and Sons, St. Albans, had many interesting Orchids, among which the rarely seen trio of Anguloas—A. Cliftonii (golden), A. uniflora (pink) and A. eburnea (white)—were conspicuous. Others of note included an unknown species of Maxillaria with yellow flowers, the pure white Coelogyne mooreana, a superb Lælio-Cattleya wistoniensis, Epidendrum radiatum (vanilla-scented) and the remarkable Brassia lawrenceana longissima, whose nearly foot-long, tapering, orange-coloured sepals and deep cream coloured lip rendered it very striking amid the rest. Silver Banksian medal.

Messrs. Stuart Low and Co., Enfield, had some nice examples of Vanda cœrulea, Aerides maculosum Schröderæ, Cattleya dowiana, Miltonia Queen Alexandra, Phalaenopsis rimestadiana, with Odontiodas and others. Silver Banksian medal.

Messrs. Charlesworth and Co., Hayward's Heath, staged some excellent Cattleya dowiana, C. gaskelliana alba (very fine), the intensely coloured Odontioda Brewii and O. Wilsonii (pink), together with Odontoglossum Ossulstonii (heavily pink spotted), O. Doris (rich chocolate markings) and O. crispum harryanum, among others. Silver Banksian medal.

SCOTTISH HORTICULTURAL ASSOCIATION.

THE usual monthly meeting of this association was held in the Goid Hall, St. Andrew Square, Edinburgh, on the evening of August 3. The chair was occupied by the president, Mr. W. G. Pirie, Dalhousie Castle Gardens. The evening was principally devoted to the reading of papers sent in by junior members in connection with the association's annual prize competition for these. On account of the war and the absence of several junior members with the Forces, the number of papers was smaller than usual, but those submitted were generally excellent. The adjudicators were Mr. J. S. Chisholm of the Edinburgh and East of Scotland College of Agri-

culture, and Mr. J. Highgate, gardener to the Marquis of Linlithgow, Hopetoun House Gardens. The first prize, a gold medal, was awarded to Mr. Walter Fleming, Mount Melville Gardens, St. Andrews, who had a capital paper on "The Cultivation of the Potato." Miss May White, Edinburgh, won the second prize with an excellent paper on "Insect Pests on the Apple." The third prize was awarded to Mr. John G. Kerr, Barcaldine Gardens, Ledaig, Argyllshire, for a good paper on "The Potato." The papers were well received. Mr. Pirie made an appropriate reference to the death of Mr. A. D. Mackenzie, of the firm of Messrs. Mackenzie and Moncur, who was at one time a president of the association. It was agreed to record in the minutes an expression of regret, and to send a letter of condolence to Mr. Mackenzie's widow and family.

The exhibits were of considerable merit and beauty, and included a display of new frilled Pansies and of double and single Pelargoniums, sent by Messrs. Dobbie and Co., The Royal Nurseries, Edinburgh; a capital exhibit of Larkspurs, Spiræa Vesta, Erythrina Crista-galli and other plants from the Edinburgh Public Parks Department, sent by Mr. J. W. M'Hattie, superintendent; Strawberries from Murieston Farm Colony, exhibited by Mr. R. Cairns, superintendent; and Sweet Peas from Miss Burton, New Saughton Hall, Polton.

HAYWARD'S HEATH AND MID-SUSSEX HORTICULTURAL SOCIETY.

THE twenty-seventh annual exhibition took place on August 2 in Victoria Park, and it was arranged that the proceeds should benefit exclusively the Horticultural War Relief Fund. To this end also the trade at the close of the show sold their exhibits, thus tending considerably to augment the amount for such a useful purpose. Though incomparable to others of preceding years, the exhibition was, nevertheless, a very creditable one, although in no classes save those of the cottagers was competition actually keen.

The Right Hon. Lord North, Banbury, who was the only exhibitor in the class for eighteen vases of Sweet Peas, was awarded the challenge trophy (to be held for one year) offered in this class—a well-deserved award, as the blooms were of excellent quality and very finely displayed. Mr. H. M. Knight, Hayward's Heath, was similarly successful in the class for a display of Perpetual-flowering Carnations. The same exhibitor scored for six pots of Streptocarpus. W. A. Sturdy, Esq., Lindfield, was successful for a collection of hardy perennials, also for a table of fruit 6 feet by 4 feet, arranged for effect with cut flowers or foliage. In the class for a collection of vegetables, eight kinds, the honour fell to Lord North with 48 points, as against 42 obtained by Mr. L. E. Smith, Handcross.

The greatest charm of the exhibition was furnished by the exhibits from the trade, which were magnificent in their quality and splendour of display, and comprised a large stand of Carnations from Messrs. Allwood Brothers, Hayward's Heath. A grand display of Roses was staged by Mr. Elisha Hicks, Twyford, Berks, whose new single Hybrid Tea Princess Mary evoked incessant admiration, not only on account of its quality of blooms and grandeur of colour, but also for its remarkable perfume. Mr. James Box, Lindfield, and Mr. Gibbs Box, Burgess Hill, both had brilliant displays of Phloxes, Gladioli and other herbaceous flowering subjects. To all the foregoing well-deserved gold medals were awarded. A silver-gilt medal was awarded to Mr. Frank Woollard, Brighton, for a stand of Roses; also to a non-competitive exhibit from His Grace the Duke of Hamilton and Brandon, Balcombe, who, in addition to a fine table of fruit, interspersed with small vases of Orchids, staged also a fine exhibit of vegetables and a stand of Begonias. Colonel Stephenson R. Clarke, Borde Hill, was awarded a certificate of merit for a most interesting collection of hardy flowering shrubs.

ROYAL LANCASHIRE AGRICULTURAL SOCIETY.

THE horticultural section of this society continues to grow in favour. On the opening day, July 29, the pavilion was crowded with a host of delighted visitors. That the Council acted wisely when adding a horticultural section with a liberal prize-list has been abundantly proved. This season's exhibition was held in Witton Park, Blackburn, and although a smaller domain than is generally accorded to this important show, the grounds and surroundings were ample and delightful. To give a full report of a show of this magnitude requires more space than can be allotted, and owing to this our notices must be brief and some exhibits passed over, although deserving of recognition.

To begin with the Queen of Flowers, Messrs. Alex. Dickson and Sons, Hawtmark, Belfast, secured the society's large gold medal for a contribution extensive in size and of great charm. Two new Roses were honoured, Lord Kitchener receiving a first-class certificate and General French an award of merit. Mr. R. Bolton of Carnforth also gained a gold medal for a charming array of Sweet Peas arranged in an easy and delightful manner, with a tinge of greenery that added to the effect. Messrs. Alex. Dickson (gold medallists) also had an extensive display of this popular flower.

The King's Acre Nursery Company, Hereford, contributed an imposing and valuable display of fruit with tempting forms of many kinds, including huge Pears, rosy Apples and bright Peaches. The Lancashire County Council displayed a valuable collection, proving its good educational work, including growing Tomatoes (a promising seedling), culinary and Sweet Peas, Apples in pots,

and various kinds of well-grown vegetables. Messrs. Little and Ballantyne showed well-grown conifers and trees, artistically arranged, at the entrance of the tent. Messrs. W. Artindale and Sons, Sheffield, had a charming display of Violas, which delighted visitors. Messrs. S. Broadhead and Son, Huddersfield, had an interesting display of alpine plants naturally planted in a rockery. Messrs. Godfrey and Son, Exmouth, Devon, set up huge bunches of the favourite Phlox, Gladioli, &c. Mr. George Mathews, gardener to A. Leaver, Esq., Briercliffe, staged a pleasing lot of cut Begonia blooms. These various exhibits were each acknowledged by the award of the society's gold medal.

Turning to the competitive exhibits, we have the greater section, although shown in a much smaller space. Mr. S. Barker, gardener to the Duke of Newcastle, Clumber, Workop, proved himself a past-master in fruit culture, attaining to the premier position for twelve dishes, including monster Melons, enticing Grapes, rich Peaches and Nectarines. In addition to this honour the four leading awards in the Grape classes all went to this excellent cultivator. Mr. J. E. Hathaway, gardener to John Brennand, Esq., Thirsk; and Mr. J. E. Newman, gardener to R. A. Tatton, Esq., Preston, were also first prize winners in this section.

Sweet Peas require more than a passing notice, nine classes being devoted to them. Mr. William Bond, Formby, excelled in this particular sphere, winning in the premier class for eighteen vases, and also in two other classes, staging long stems with large, well-coloured flowers. Other winners of first prizes were Mr. E. R. James, Banbury; Mr. G. E. Kitchens, Wem, Salop; Mr. V. Booth, Gatley, Cheshire; and Mr. J. A. Whittaker (two), Tarn House, Skipton.

Dinner-tables consisted of about two dozen, providing plenty of material for educational purposes in varied floral forms, including the aristocratic Orchid, the queenly Rose, the popular Sweet Pea, the pleasing Gerbera, the quaint Gloriosa and many others. The leading awards went to Mrs. John Nixon, Alderley Edge; Miss Newsham, Ormskirk; and Mrs. W. Garner, Hale, all well known for their artistic capabilities.

Turning to the plant section, there were four classes, and those renowned exhibitors, Messrs. James Cypher of Cheltenham, took the leading award in three of the classes, viz., for a group of miscellaneous plants in a space of 300 square feet; twelve stove or greenhouse plants, not fewer than seven to be in bloom; and a like number in pots not exceeding 10 inches. Messrs. Blackmore and Langdon of Bath contributed a group of tuberous Begonias in the remaining class, and possibly this entry caused a greater surprise than any other in the show. The form was that of an inverted saucer, broken up by a Palm in the centre and hanging baskets at intervals. The delicacy and colouring of the massive and symmetrical blooms and the artistic staging gained hosts of admirers and words of commendation.

Other cut-flower classes included one for an exhibit in a space of 100 square feet, Mr. W. H. Garner securing the leading award, staging Gladioli, Phloxes, Carnations, Roses, &c.

The Carnation-lover was gratified by the exhibit of Messrs. C. H. Tardevin, Willaston, who staged fine blooms, pleasingly grouped.

Roses were shown by Mr. Gerald Garnett (Wyreside) and Mr. J. W. G. Smith, staging well-formed blooms, and these exhibitors obtained first prizes.

Mr. Frank Reader and Horticultural Exhibitors.

At the Royal Horticultural Hall on August 4, Mr. Frank Reader, chief cashier of the Royal Horticultural Society, was presented with a solid silver salver and a purse of gold. These had been subscribed for by horticultural exhibitors as an appreciation of the unfailing courtesy shown towards them, and assistance so willingly rendered, by Mr. Reader during the past twenty-five years. The presentation was made in the presence of a large and representative gathering by Mr. Harold Beale, who, in a business-like speech, stated that nothing ever seemed a trouble to the recipient. No matter what an exhibitor wanted, Mr. Reader was the man to go to. In replying, Mr. Reader stated that it was always a pleasure to do anything for members of the horticultural trade, and he hoped the good feeling that existed not only between those present and himself, but also between exhibitors and the Royal Horticultural Society, would long continue. Mr. F. Herbert Chapman, who had acted as secretary and treasurer, was cordially thanked for his services. The salver, which is suitably engraved, is a very handsome example of the silversmith's art.

THE GARDEN.

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AUGUST 21, 1915.

NOTES OF THE WEEK.

Lieutenant H. M. Woolley.—It was a recent and unexpected pleasure to meet Mr. H. M. Woolley, a keen horticulturist, whose home address is Old Riffhams, Danbury, Essex. Mr. Woolley left the Royal Gardens, Kew, in March, 1908, to take up an appointment on a rubber plantation in Borneo, and he has returned to England to join the Colours. It will be remembered that his brother, then Lieutenant Woolley of the 9th London Regiment, was awarded the V.C. for gallantry on Hill 60, since when he has been promoted to captain. Lieutenant H. M. Woolley has been gazetted to the 12th Essex Reserve Battalion.

The Plantain Lilies.—Owing to their bold foliage and vigorous habit, the larger of the Plantain Lilies or Funkias are excellent for forming broad edgings to shaded pathways, as shown in the illustration. They appreciate well-drained but rich soil, when they will quickly make large tufts of striking, ornamental foliage, surmounted, in their respective seasons, by the rather small, pendulous, bell-shaped flowers. The best known are *F. Sieboldii*, with very large, glaucous leaves and creamy lilac flowers; *F. grandiflora*, with comparatively large, pure white and sweetly scented flowers; and *F. ovata*, with very large, deep green leaves and lilac blue flowers. There are also several variegated varieties of these species. *F. tardiflora* flowers during late October and November, when its pale purple blossoms are much appreciated in the outdoor garden.

Bottled Fruits and Vegetables.—The Royal Agricultural Society of England, realising the desirability of encouraging everyone to preserve as much food as possible, are offering prizes for bottled fruits and vegetables at their Manchester show next year. These prizes are offered both to amateurs who bottle fruits and vegetables for their own use, and not specially for the purposes of sale; and to fruit preservers who bottle the fruits which they offer for sale. Full particulars and conditions of entry can be obtained from the Secretary, 16, Bedford Square, London, W.C.

Lime Wood Attacked by Fungus.—At a recent meeting of the scientific committee of the Royal Horticultural Society, Mr. Bowles showed a specimen of Lime from a branch which had fallen from a tree in the avenue at Forty Hall, Enfield, in which the annual rings of wood were separated from one another. This separation had evidently been brought about by a fungus, the mycelium of which could be discerned as a thin pellicle between the rings, but could not be further identified until fruit was obtainable.

Lobelia ramosa.—This makes an excellent pot plant for conservatory decoration in early

This makes a fine, branching bush 3 feet or rather more in height, the large, funnel-shaped blossoms being produced in great profusion. These are a charming shade of rose pink, with darker venations. Both in the garden and as cut flowers for the house these Mallows are beautiful and useful, and deserve to be more extensively grown. The white Mallow is also very pretty, and when grown in association with the pink, in the proportion of about one white to three pink, the effect is particularly good. Readers should make a note of these now in their diaries, so that seeds may be ordered early next year for sowing outdoors the first week in April.

Rose Betty.—For a strong-growing and continuous-flowering garden Rose we do not know of a better variety than this. Raised by Messrs. Alex. Dickson and Sons, and first put into commerce in 1905, it quickly became a great favourite, its large clusters of long-petalled, fragrant flowers never failing to elicit admiration. The colour is coppery rose, shaded yellow, the combination creating a very charming effect. It makes a large, rather spreading bush, the stout, spiny stems withstanding the fiercest gales. Although rather too vigorous for beds, except those of large size, it is excellent as a large specimen in the mixed border or, indeed, any situation where plenty of space is available.

Collarette Dahlias.—It may surprise a good many who are not familiar with Dahlia-growing to learn that this type, the Collarettes, may not only very easily be raised from seed, but that they are just as much annuals (if by that is meant that they bloom the same year as that in which they are sown) as China Asters. In fact, treated in the same way and under exactly the same conditions, some of them are as likely as not to be in bloom the first. A good strain provides a great variety of colour, and in few of the resultant plants will the little disc of petals round the yellow composite centre be wanting. A sixpenny or a shilling packet is full of potentiality.



PLANTAIN LILIES BORDERING A SHADED PATHWAY.

summer. We saw some very good examples of it this year in a Hampshire garden. Under glass, with a minimum of heat, the growth is upright and but little branched. It flowers freely, but not in such profusion as to hide all the stems and leaves. On the contrary, these are very much in evidence, and serve as a delightful foil for the large blue flowers. *Tenuifolia* is another somewhat similar Lobelia which may be grown for the same purpose. It is taller in growth and of a deeper shade of blue, but it does not make such a nice compact plant as *ramosa*.

Pink and White Mallows.—Among the many hardy annuals that are flowering just now, none is more highly appreciated than the pink Mallow.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

A Large Fungus.—On August 10, in a small shrubbery in my garden, a fungus—I believe, *Lycoperdon giganteum*—was taken up measuring 42 inches in circumference and 10 inches in height, weighing 5lb. 14oz.—C. L.

Recipe for Bottling Green Figs Wanted.—I would be glad if any reader could give recipes for bottling or preserving green Figs. When should they be gathered and how treated? Can they be kept green and clear-looking in the bottles, as one sometimes sees them, or must they go dark?—C. E. C.

British versus Dutch Bulbs.—Let everyone who contemplates buying bulbs pause to think before they hastily buy the usual dumped Dutch

for Mr. Jeffrey, Captain Hope's gardener, believes in good cultivation for his Roses and carries his ideas into practice.—SUB ROSA.

Euphorbia Sibthorpiae.—Few of the hardy species of *Euphorbia* possess much ornamental value, but of the small number which are worth a situation in the garden *E. Sibthorpiae* takes a high place. It is a native of Greece, and though long known to botanists, is seldom seen in gardens. Of extremely robust habit, it pushes up numerous sturdy stems, which rise to a height of some 5 feet or 6 feet. The stems—at least the upper portions—are densely clothed with narrow, pointed, bluish green leaves, each quite 5 inches long. The plant is at its best during March and April, and at that time the terminal shoot of each stem consists of an inflorescence, the conspicuous portion of which is the bracts, in the centre of which the inconspicuous flowers are carried. In this Spurge the bracts are of a bright greenish yellow, so that

and Thomas Moore. No praise is too high for either of these varieties, for they respond quite well to forcing treatment or otherwise while for massing outdoors we have but few more effective in their respective shades of silky carmine rose and buff orange.—H. TURNER, *Serlby Gardens, Bawtry.*

Toads in the Garden.—Re article on toads in *THE GARDEN* of July 31, Mr. E. T. Ellis does right in calling attention to the good these creatures do. But surely he is wrong when he says, "Some people think they eat young growths of annuals and other plants." Now, I wonder if these people ever saw a toad making a meal off plants. The natural food of toads are insects; and after taming a toad to come at a whistle and feed out of your hand, surely one can speak of their habits. Woodlice are a pest to the gardener, and these are their favourite food. After some years of observation, I never saw a toad take any insect when still, but always when on the move.

I go so far as to say they never take anything unless moving. Offer the most dainty morsel to the toad and watch him put his head on one side. Directly the insect moves away it is snapped up by the tongue quicker than the eye can follow. Sometimes one can induce the creature to take food by poking it about with a twig. I have seen a small portion of a plant rolled up and moved about with a stick. The toad will take it; but watch the creature's efforts to get rid of it. This alone should be sufficient proof that toads never take vegetable food in any way.—S. G. S., *Newbury.*

Some Beautiful Flower-Beds.

The flower borders in the Bournemouth Public Gardens look, as usual, very beautiful. The majority of them are very large, and contain many plants. Carpet bedding, bedding-out as it obtained about twenty-five years ago, and subtropical bedding are all represented, and all find favour with the public. It would take up too much space to note the features of all the beds as planted this year, but three of them may be explained. No hard-and-fast rule is adhered to by Mr. J. B. Stevenson, the able superintendent, and he always has some-

thing fresh for the visitors to enjoy every year. Geranium Golden Harry Hieover and blue Lobelia were evenly mixed in one case with dot plants of Fuchsias and a bordering of *Alyssum maritimum*. Zonal Pelargonium Maxime Kovalevsky (orange-coloured flowers or orange red) with dot plants of Liliiums and an edging of *Centaureas* looked grand in other beds. A very striking bed was one filled in the centre with *Alyssum maritimum*, dot plants of Fuchsias, and a very broad edging of that grand old garden plant, *Gazania splendens*. Of course, there are plenty of Fir trees in and near the Bournemouth Public Gardens. There are not many kinds of plants that will succeed under these trees. Funkias were thriving under many Firs, however, and even the old favourite Sweet William was a success. I have never seen Funkias do better. They should be more extensively used in gardens than they are, as both flowers and foliage are attractive.—G. G.



EUPHORBIA SIBTHORPÆ IN THE GLASNEVIN BOTANIC GARDENS.

produce. The great British bulb-growing centres—Guernsey, Ireland and the many large bulb farms in England—grow bulbs equal to any Dutch produce. These British firms have not only sent their best manhood to support our Armies, but they also employ British labour, which should at all costs be supported.—C. H. TAUDÉVIN.

Rose Rambling Rector.—But seldom found in catalogues or in gardens, Rose Rambling Rector is yet one which deserves the consideration of those who take pleasure in climbing Roses with small flowers. I saw a pillar of this in the gardens of Captain Hope at St. Mary's Isle, Kirkcudbrightshire, the other day. It was superb—a perfect mass of small Ranunculus-like white flowers, much more freely produced than on Thalia and of purer white. In big bunches, these, combined with the free growth which covered a tall pillar, made a picture of great beauty. It is almost superfluous to say that it was well grown,

a large plant carrying many flower-heads presents a highly ornamental appearance. *E. Sibthorpiae* is perfectly hardy at Glasnevin, where it is growing in a rather exposed position, so that it should be hardy in most parts of the country. It succeeds in any ordinary garden soil.—S. ROSE.

Bulb Notes.—As a great admirer of that excellent Tulip Prince of Austria, it was with pleasure that I noticed the Rev. Joseph Jacob's able pen, on page 385, issue August 7, recommending it for pots. It is unquestionably good, and as a second early very difficult to improve upon to those who appreciate its colour. While serving with the late Mr. W. Fyfe at Lockinge I well remember the favourable impression he formed of it both growing inside and outside, and said it would undoubtedly be much more largely grown when its good points were recognised and the price of it came down a little. I would also urge the claims to a place, for use in pots, of Proserpine

Goldfish Changing Colour.—My experience of the golden carp does not entirely agree with that of "S. G. S., Newbury," in his reply to the query from "G. M." on page 385, issue August 7. For many years I had gold and silver fish in a large tropical Water Lily tank, and also in two tanks outdoors. There were over a hundred fish in all, and many thousands were hatched every year; but the old fish are such cannibals that unless the babies were isolated, very few reached maturity. When hatched they were invariably of dark brown colour (I have never seen a black carp), and retained this colour for the first season. Early in the next spring a proportion (usually about seven out of twelve) would change colour, some becoming gold, a few silver, and others parti-coloured. The remainder continued brown for the rest of their lives. Generally speaking, there was no change in colour or marking among the sports; but in some of those which became red and brown—popularly called black and gold—the gold patches would increase a little at the expense of the black for a few years. If there is plenty of water, artificial feeding is not necessary; but with a limited supply it is necessary to supplement their natural food, and then, as "S. G. S." says, bread is one of the best foods, though the fish like a dry, flaky biscuit, such as Toast or Cream Crackers. These fish are very easily tamed, and will soon swim to the side of the tank and feed on a piece of bread held in one's fingers. As with plants, hardness can only be relative. The individual which is hardy at one place may be tender a mile away, so it is not safe to particularise any locality. Besides, much depends on the character of the pond or tank, as well as its position. In my experience goldfish do not thrive in slate tanks, even in warm districts. The water becomes too cold and hard, whereas in adjoining tanks of concrete the fish are quite happy. These fish love the sun, and will lie for hours basking in the sun-warmed water close to the surface. During very cold springs goldfish in open-air tanks and ponds are often attacked by a fungoid disease under the scales. This is generally fatal, and I am not aware of any cure, except that if the disease is seen in its early stages and the fish can be isolated in warm water, it frequently disappears, though the disease sometimes attacks fish that are in heated tanks, in which case the affected fish should be immediately caught and destroyed, as the disease is contagious.—**CECIL BARTLETT.**

The Economy of Rockwork.—I have just been reading the article by "Kurstcot" in *THE GARDEN* for August 7, page 386, and cannot help thinking that there is much therein that will prove misleading to the average reader. In the first place, your contributor claims that the "rockery appeals, and should appeal, because it is the method of culture giving the maximum result in plant cultivation on any given area of ground." In this he is wrong, and if mere economy of space is the only recommendation for the introduction of a rock garden, then he and everyone else will be well advised to abandon the idea. Even for the cultivation of alpine plants (and "Kurstcot" apparently extends his claim to all garden subjects) it is not the most economical; and if mere collections of plants are required, and these to occupy the smallest possible area, then by far the best method of cultivation is to grow them in pots or pans, as they can then be moved as desirable, and instead of the 250 mentioned by "Kurstcot," at least 400 species

can be well grown. Far, far better this than the sort of rockery he describes with its "stone burr bricks and other material." What harmony of association is there between burr bricks and alpine plants? What is there beautiful in a burr brick that we should desire it? Why will people talk of burr bricks and gardens in the same breath? If there is anything of beauty in a rock garden, surely it is in the natural association of the plants with a reproduction—as far as may be—of their natural environment. Nor does a burr brick assist in cultivation; rather the reverse, in fact. Many plants avoid as carefully as they can the partially vitrified surface, some decline to grow near burr bricks at all, and none really likes them. The coarser plants certainly cover them, but they will do that with any other rubbish.

Another quotation from "Kurstcot" is scarcely the idea that many of us hold. He says: "Too much is usually made of the rockery itself and too little of the growth it accommodates." The failure of the average rock garden is due to ignoring the true place that the stone should occupy in the scheme. So much is this the case that the stone is often so obtrusively ugly that one is tempted to overlook the plants altogether. This is rather because not enough instead of too much has been made of it. After all the volumes that have been written on the subject, it would appear to be unnecessary to reiterate the fact that the rock garden to be successful must be something more than a place to cultivate plants; indeed, for this purpose *alone* it is unnecessary. The true place of the rock garden is to reproduce those natural conditions and effects one finds in rock districts, and then, having reproduced as nearly as may be such features as make the strongest appeal to our sense of the picturesque, to plant them as nearly as possible with the vegetation we should find in such conditions in Nature. The essence of the art of rock gardening is its realism. There is nothing either realistic or picturesque in heaps of stones, bricks, or broken concrete, however thickly they may be planted with alpine or any other plants; moreover, the argument frequently used that it does not matter what material is used, because it will soon be covered, is a foolish one.

At the Royal Horticultural Society's show held at Chelsea last May a series of rock gardens were exhibited, each of which occupied less space than that mentioned by "Kurstcot." In nearly every case some particular example of natural formation was adopted, all were different, and I think it will be conceded that many of them were beautiful because they looked natural. I was on the grounds throughout the whole of the time they were in the course of construction, and can say without hesitation that all of them could have been reconstructed under normal gardening conditions in such a way that they would have made ideal homes for alpine, and yet lose nothing of the actual beauty of the stone used, or the realism of its arrangement.

Frankly, I had hoped that after the advice so frequently given in your columns by many writers of experience and proved ability in this department of horticulture (without considering my own efforts in this respect), advice and instruction that you have extended over many years, the idea of constructing a rock garden of "bricks and other material" than natural stone was as dead as a certain king, and that, as of him, it might be said, "none were left so poor as to do it honour."—**GEORGE DILLISTONE.**

THE CULTIVATION OF FUCHSIAS.

[In Answer to a Correspondent.]

THERE are very few classes of plants that can be put to as many different uses as the numerous forms of Fuchsia which we have now in our gardens. For the embellishment of the greenhouse or conservatory they may be grown either as bushes, pyramids or standards, according to individual taste. The tendency to train them in standard form is decidedly on the increase, and certainly the flowers, owing to their drooping nature, are seen to considerable advantage when grown in this way. The looser-habited kinds are also very pretty when trained to roof or rafter, under which conditions they will keep up a display of bloom throughout the entire season.

Outdoors during the summer they are invaluable, either as large specimens sunk in the turf or grouped in a bed, thickly or thinly, according to individual fancy. When disposed over the surface of a bed at such a distance that each individual has space to show its true character, and the ground underneath is clothed with some low-growing flowering plant, such as the bedding Violas or Harrison's Musk, a very pretty effect is produced. Some of the dwarf-growing Fuchsias themselves may, if preferred, be used for carpeting purposes. In any enumeration of the uses to which Fuchsias may be put, the hardy kinds must on no account be passed over, as they flower profusely during the latter part of the summer, and their small, gracefully reflexed blossoms are by some preferred to the larger ones.

A desirable feature of the different Fuchsias is their simple cultural requirements, which stands them in good stead in cottage gardens as well as in more pretentious establishments. The named varieties are readily increased by cuttings, which may be taken at any time during the growing season. The best time, however, is in the spring months, when the plants, just awakened from their winter's sleep, push out new shoots. As soon as these shoots are from 2½ inches to 3 inches long, they form very suitable cuttings. If the bottom pair of leaves is removed and the cuttings inserted into pots of light, sandy soil, they will, in a close propagating-case in a gentle heat, strike root in about a fortnight. In the summer they will strike readily without any artificial heat, provided they are kept close and shaded.

When rooted, they must be potted singly and shifted into larger pots as required. A suitable compost for all Fuchsias may be made up of two parts of loam to one part each of leaf-mould and well-decayed cow-manure, with about half a part of sand, the whole being thoroughly incorporated together. If the loam is of a rather light nature, more of it may be used. This compost may be broken up finely for the small plants, using it rougher for the larger ones. On no account should it be sifted.

If the young plants are intended to be grown as bushes, they should have the growing points pinched out in order to induce the formation of side shoots; if as pyramids, be tied to an upright stick and the development of side branches encouraged; while for standards a good stake is necessary, and the removal of all side shoots till the required height is attained. The pots



STEPS AND BRICK TERRACE IN A SURREY GARDEN.

should be well drained, as Fuchsias need a liberal quantity of water during the growing season, yet at the same time they very much resent stagnant moisture. When the pots are well furnished with roots, an occasional stimulant will be beneficial, but there will be sufficient manure in the compost before recommended to last during the earlier stages.

In the winter, Fuchsias lose their leaves, so that they may be readily kept at that season anywhere just safe from frost. They need then little or no water. Taken into the greenhouse in the spring and watered, they will, under the influence of light, air and moisture, quickly start into growth. When taken from their winter quarters, any straggling shoots may be shortened back in order to ensure good shapely specimens. A few good varieties for growing into pyramidal shape are:

Single, dark-coloured flowers: Charming, Delight, President, Royal Purple, Scarcity, Valiant and Wave of Life.

Single, with white tube and sepals and coloured corollas: Amy Lye, Beauty of Trowbridge, Jubilee Queen, Lady Heytesbury and Mrs. Marshall.

Single, white corolla: Flocon de Neige.

Double, white corolla: Ballet Girl, Duchess of Edinburgh, Molesworth and Mrs. E. G. Hill.

Double, dark corolla: Avalanche, Brilliant, Comte Leon Tolstoi, La France and Phenomenal.

Single, yellowish or buff-coloured flowers: Earl of Beaconsfield and Mrs. Rundell.

There is such a small demand for the original species that very few growers keep them in stock. It is, however, probable that your correspondent might obtain them from Messrs. H. Cannell and Sons, Eynsford, Kent.

A very interesting group of Fuchsias showing a marked departure from the ordinary garden forms was sent here from the Continent about ten years ago. Some of them have since then become popular, though the markedly Teutonic

names of a few will not be in their favour now. The best known are Andenken an H. Henkel, Clio, Coralle, Eros, Fürst O. von Wernigerode, Gartenmeister Bonstadt, Gotingen, Perle and Thalia. These appear to be of mixed parentage, and I should say that *Fuchsia corymbiflora*, *F. fulgens* and *F. triphylla* had played a part in their production.

A very pretty little hybrid which should be of especial interest to your correspondent is Benita, which has been several times shown by Messrs. W. H. Rogers and Son, Red Lodge Nursery, Southampton, by whom it was raised. The flowers are about an inch long, while the tube and sepals, which do not reflex, are of a rosy scarlet colour. The petals are bright orange scarlet. This variety is very floriferous. The parents are said to be Gartenmeister Bonstadt and *Fuchsia splendens*.

H. P.

SEASONABLE NOTES ON AURICULAS.

THE Auriculas will soon commence their second season of growth, and it is most important that they should be encouraged to make all the headway possible during the present and two succeeding months. Auricula fanciers always like to see a good autumn growth, as much depends upon this point; in fact, it is most essential if we are to secure fine heads of bloom next spring. We must also have in view the two most critical months for the Auricula, viz., November and December; but if the plants are not coddled in any way, there will be little to fear in this direction. Full exposure to the air both night and day should be the rule, and a little rain will do the alpine Auriculas no harm; but the show varieties, on account of the farina, will need protection from heavy showers.

Each plant should be afforded sufficient water to keep the soil just moist, but this must not be overdone, and we must also remember that both extremes are detrimental to the Auricula. Moderation should be the key-note. A sharp watch must be kept for insect pests, especially green fly, and, directly any are seen, the frame should be vaporised without delay. Examine the collection at intervals, and remove all dead leaves and weeds.

Offsets or Side Shoots.—The bulk of the offsets are taken in February, but any that were not large enough for removal at that date may now be given a separate existence. If the variety is a common one and additional stock is not required, they may be planted in a small nursery bed and eventually transferred to the rock garden, flower border, or any shady position. With a new or rare kind we should endeavour to secure all the offsets available, and I always get a duplicate of any rare plant as soon as possible, because there is the possibility of the plant dying and the variety being lost, a serious matter if it happens to be the only example in cultivation. Each offset is removed with a few roots, and it is then placed in a

small pot, which should have one-third of its depth filled with drainage. The rooting medium consists of good quality loam, leaf-mould, and a sprinkling of silver sand. For a week or so the frame should be kept rather close; but once root action is evident, more air can be admitted and the lights finally removed. Some of the offsets that were potted off in February are making nice sturdy plants, and the pots are filled with roots; consequently they enjoy copious supplies of water whenever the weather is dry and hot. A few of the strongest will be given a receptacle two sizes larger, and the operation will be carried out at once. The same kind of soil will be employed as advised in the article that appeared in May. Careful watering must be practised until the plants are re-established. All the plants should be looked over, and if the surface soil has become hard or sour, it may be pricked up with a pointed stick, a proceeding which is beneficial to the plants as it admits air to the soil and thereby sweetens it.

Sickly Plants.—In all collections a few examples will be found that do not make so much progress as we desire, and where they exist it is best to place them together, when they can receive individual attention. The cause may be over-watering or the other extreme, stem rot, or the brown grub, but, happily, this pest does not often make its appearance where a clean compost is used. Sickly plants, as a general rule, should be turned out of their pots and the stem examined. If this is decayed, it must be cut back to living tissue, when it can be easily ascertained if the grub is present. It should, however, be pointed out that the grub is not in every instance responsible for stem decay; but, at the same time, it is just as well to watch for it. Before repotting in fresh soil a thorough cleansing of the stem and roots is needed, and in all probability a smaller pot will suffice. Very large pots should always be avoided for plants that are not in robust health.

W. B.

WORK AMONG THE CHRYSANTHEMUMS.

The Incurved Section.—Some of the finest blooms develop when the buds are "taken" during the first week in September. There are a few varieties, however, that resemble some of the Japanese, as they require a long time to properly develop from the bud stage. The buds of these are best taken about August 20, but if taken earlier the petals are coarse, short and do not incurve neatly, but often reflex or grow straight. I strongly advise cultivators who may now possess such buds, with shoots growing from the stems lower down, to discard the buds and retain the shoots, as the latter will bear small flowers suitable for vases or for greenhouse decoration. The inexperienced cultivator may tell which buds will prove unsatisfactory by noting the following: The centres of such buds are scaly and hard; the outer petals are more forward in proportion than the inner ones, are more irregular, and borne on a short, thin, hard stem.

How to "Take" Good Buds.—It will be found that some of the buds will be surrounded by shoots, and others by smaller buds and small leaves, but not real shoots that would grow again if left. Such buds are similar to terminals, and form thus through the plants forming buds instead of free growths during the summer season. The buds should be taken now, as they will develop freely and form beautiful blooms in due course. The buds with shoots growing near them are crowns, and must be taken in the same way as recommended in the case of crown buds of the Japanese. Let the bud to be retained be quite free of all surrounding shoots or smaller buds before the latter are pinched off. It is important that the stem of the retained bud be not damaged at all, else the bloom will open freer on one side than the other. I need only say, further, take the buds gradually, removing one shoot or one bud each day until all are pinched off.

Terminal and Late-Crown Buds. Terminal buds of the Japanese section will be in fit condition to be taken now, also very late-crown buds. The first will not develop and form large blooms, but specimens that will be highly coloured and useful. The latter will, in some cases, form very nice, compact blooms, refined and well coloured. All of them will be valuable for decorative purposes during November, and some of them will be good enough to exhibit.

Surface Mulching.—As long as there is space for watering and top-dressings, continue to put on the very thin sprinklings of rich, finely sifted composts as the new roots show on the surface of the old soil.

Suckers.—Some varieties produce suckers from the base more freely than others. Except in a few instances, where the varieties may be scarce, all these suckers must be carefully removed. If left to grow, they will be 1 foot to 18 inches high by the time the blooms are

developed. Of course, they will be useless for the purpose of cuttings, and will have robbed the plants of much nutriment. Furthermore, by leaving them so long untouched, the cultivator will have done much to prevent the free growth of sturdy suckers in November and December, just when such are required. Remove all suckers regularly until the blooms are half developed. In taking out these suckers be careful not to cut off roots. Insert the knife close to each sucker and sever it just below the surface of the soil. New ones will grow in due time and be very useful for insertion as cuttings.

Tying Up the Shoots.—The Chrysanthemum grows very freely in the early part of the autumn. I now refer chiefly to late-flowering varieties; but even shoots bearing terminal or late-crown buds grow very rapidly, and so the cultivator must be ever on the watch and tie them up before the winds break off the precious buds.

Earwigs.—In some districts these pests are very numerous, and will do a great deal of harm to buds if not checked. All well-known means should be adopted to trap them. The keen cultivator will not rely solely on traps, but spend a short time every evening in looking for and killing them. Earwigs remain quite still directly a light shines on them. If the plant is touched or shaken, they drop down suddenly. Many may be caught by hand and destroyed late at night. When this work is done, tap the stems of the plants sharply. Any insects overlooked or lurking among the leaves will be shaken to the floor, when a number can be thus caught, and, even if they are not, they will not again go near the buds that night. I have found this course result in saving the buds from serious injury year after year.

Border Varieties.—Owing chiefly to the introduction of new varieties dwarf in habit, bushy, free flowering, and bearing varied and richly

coloured blooms, our borders are gayer with Chrysanthemums than was the case a few years ago. The older and taller-growing sorts were often unsightly objects when tied up like so many sheaves of Corn. That was the fault of the cultivator. Do not let us be charged with such neglect now, but stake and tie out the stems neatly and in as natural a manner as possible. This ought not to be difficult, as the habit of the plants is so good.

Plants in all stages of development from the bud stage should be freely watered with diluted manure-water about twice a week. This attention will not only improve the quality of the blooms, but the leaves also. It is not necessary to apply mulches to border plants at this season, but it is necessary to hoe the soil around the plants and keep down weeds. While the plants are flowering they should be relabelled if the old labels are decaying. The removal of faded basal leaves not only takes away convenient hiding-places for earwigs, but makes the appearance of the plants all the more attractive. AVON.

AN INTERESTING SURREY GARDEN.

THERE are some drawbacks to gardening on the very light, sandy soil of the West Surrey Hills. Drought is often badly felt, and the constant need of liberal manuring is a serious drain on the horticultural exchequer. But there are compensations, one of the most distinct being the way the soil can be worked at all times of the year and in nearly all weathers; not, as in heavy land, being baked to a brick-like surface in dry times, or becoming a pasty mass when wet that can neither be worked nor trodden on.



THE LITTLE KITCHEN IN MR. THACKERAY TURNER'S GARDEN.



A SIMPLE OPENING THROUGH THE GARDEN WALL.

Another advantage is that, while in stronger soils, plants make over-abundant height and leaf-mass, here the growth is moderate and the bloom abundant, so that, whereas we often wish for a better soil, we comfort ourselves by the reflection that, after all, we should not wish to live in any other. So it is that, when the character of the ground is recognised and the right ways adopted, one of the chief of which is deep cultivation, there may be successful gardens such as the beautiful one that Mr. Thackeray Turner has made at Westbrook, close to Godalming, the garden having, from the beginning, the inestimable advantage of being designed and carried out by an artist who is in close sympathy with all that is best in the way of hardy flowers.

The main feature of the place is a sunk garden on three concentric levels, wide flights of steps coming down on all four sides to a green space with a large octagonal central tank. This is approached by several paths, some of grass and some of sand, each having its own intention and aspect, the flanking flower borders being differently treated. Yew hedges, now well grown, separate some of the main compartments. One path leads to the walled winter garden, a pleasant small space whose solid walls of Bargate stone are high enough to give complete seclusion and protection from wind and any cold draughts, but are not so high as to shut out even the low winter sun, and whose seat, in a hooded stone-built recess, is a pleasant place of rest on any fine days of the months of winter and earliest spring. No draught comes in by the arched opening, as the path of approach is walled on each side and turns just before the entrance is reached. The sunk garden is at its best during late summer, when the circling mass of tall plants on the upper level—Delphinium, Hollyhock and

so on—cut the bounding walls of Yew with massed peaks of splendid bloom.

The southern way out of the sunk garden passes through well-grouped masses of shrubs and trees and a space of home orchard, the path leading on, as everywhere in this good garden, with the giving of that sense of expectancy, that charm of mystery, that is the best quality with which a pleasure ground can be induced. One thinks, in painful contrast, of the many widespread gardens of the duller kind of formal type, that show everything all at once, leaving nothing more to expect, nothing more to hope for. Here there are ordered lines and yet a new delight at every turn.

The stone arch in the wall that separates the inner from the outer garden shows a simple and dignified way of passing through a garden wall. The way the Rose is led is also a good lesson in training; the arch is adorned, but not smothered. At the middle point of another side of the garden wall the way from the lawn to the kitchen garden passes through a gabled summer-house; in the kitchen garden itself some quarters of useful planting are hidden by a splendid mass of Oriental and Shirley Poppies.

One of the many pleasures of a garden is the planning and invention of various devices to suit the needs of special plants and places, and at the same time to be in harmony with what is near. It is not every garden that has, in an easily accessible and easily visible spot, a space of damp ground such as is wanted for the well-being of the gorgeous forms of *Mimulus*. At Westbrook they have been exactly accommodated in a raised bed that shows in the picture of the steps up to a brick-paved terrace, just behind a plain-shaped pot of *Agapanthus* not yet in bloom. The bed is kept moist by a trickle of water from an unobtrusive tap, and, being raised, the brilliant beauty of the plants is shown to perfection. Another

instance of good invention is shown in the chimney of a little garden kitchen, where the daughters of the house practise cookery and teach it to members of a girls' club. The short chimney is cleverly built up of roofing tiles. Hip tiles form the angles, while four ridge tiles, set up on end with one to cap them, make what local builders call a "bonnet" at the top. How well poverty of soil is overcome by good cultivation is well shown by the growth of the giant *Rheum*, and especially by that of *Verbascum olympicum*, which form prominent features in this garden. When they are at their best their enormous candelabra-like spikes are a sight to see.

GERTRUDE JEKYLL, in *Country Life*.

THE SYRIAN HIBISCUS.

THE Syrian Hibiscus is one of those unfortunate plants that are known under various names. It is sometimes met with in gardens under

the name of *Althea frutex*, although it is correctly known as *Hibiscus*

syriacus, and it is said to have been introduced to this country during the latter end of the sixteenth century.

Considering that it has been known for such a very long time, it is rather surprising that it has not made greater strides in public favour. It is a hardy deciduous shrub possessing many good points that have been sadly overlooked. As a sun-loving plant it has, indeed, been put to a severe test this season. So far as the writer's observations are concerned, it has withstood the wet far better than most other outdoor shrubs, and gives promise of shortly making a brave show of flowers.

The best time to see the blooms is in the early morning. It is the flower of a day; in bright weather the blossoms begin to close about noon, and by the evening they are faded, never to open again. However, so numerous are the flower-buds produced that each faded flower may be replaced by a fresh one until all are exhausted.

There are many varieties of great diversity in colour, the bushes varying in size from 4 feet to 20 feet in height, so that they are very accommodating subjects for informal planting. A warm position in a light, sandy soil seems to suit this Hibiscus best, although it is not fastidious as to its surroundings, for it is one of the few flowering shrubs that will succeed almost in the heart of London. It is not, however, by any means a rapid grower, and in that respect is excellent for small gardens where space is limited.

A few of the most approved varieties are alba, single white, and its double form; *pæoniiflorus*, double pink; *Leopoldii*, large flowers light crimson; *Hamabo*, single pink, dark centre; *cæleste*, single blue; *Violet Clair*, double; and *Pompon Rouge*.

H. C.

THE COLOMBIAN ODONTOGLOSSUMS.

THIS group embraces some of the best in the varied genus *Odontoglossum*, whether we view them from an easily cultivated point or judge them for their decorative value. They are cool-growing Orchids, and any house where a minimum temperature of 50° Fahr. can be maintained will suit them. Blinds will be necessary throughout the spring and summer months, and the house ought to be provided with sufficient ventilators, both top and bottom. The atmosphere must be kept moist by sprinkling the stages and floors with water whenever they are dry, but in winter less atmospheric moisture is needed.

Rain-water should always be used, both for watering the plants and for spraying overhead whenever the weather is dry and hot. Ventilation is an important factor in the cultivation of all plants, and when dealing with Orchids cold draughts must always be avoided. These can be prevented by opening the top ventilators slightly and keeping the bottom ones closed, or *vice versa*. When the temperature outside

is above 50°, both sets may be open if needed, and a few ventilators may remain open during the night. Shade will be required directly the sun begins to raise the inside temperature, and the blinds may be rolled up again about half an hour before the sun ceases to shine on the glass. Insect pests must be held in check by vaporising the house about every third week, or when the presence of thrip is noticed.

Where a quantity of *Odontoglossums* are grown, a few will need repotting at intervals throughout the year; but the bulk will require attention in August and September. All those should be repotted that need more root space, also any that may be sickly, or where the soil has become sour through overwatering.

Healthy examples, if in small pots, can be moved on without much disturbance beyond removing the drainage and a little of the surface soil where it is in a bad condition. Larger specimens which, perhaps, are exhausted must be overhauled, cutting away all the dead roots and most of the leafless back pseudo-bulbs. Two or three behind each lead or growing point are ample.

In growing these Orchids, ordinary flower-pots are employed, and one-third of their depth is filled with drainage, over which is placed a thin layer of moss to ensure a free passage

for water. The soil consists of *Osmunda* fibre one-half, good fibrous peat one-fourth, and sphagnum moss one-fourth, to which is added a sprinkling of sand or finely crushed crocks. The whole is cut up tolerably fine, and all the dusty particles are removed by sifting through a sieve; then it is thoroughly mixed a few days prior to it being used. The compost is pressed moderately firm, and on no account must it be elevated above the rim of the receptacle. For a month or six weeks careful watering is necessary; but when root action is evident, the supply can be increased.

It should be stated that the proper time to repot an Orchid is when roots are seen at the base of the new growth. With some Orchids the stage of growth at which roots appear varies, but with *Odontoglossums* the shoot is partly developed.

The Colombian section of *Odontoglossums* includes the beautiful *O. crispum* with the host of its charming varieties and hybrids, *O. triumphans*, *O. andersonianum*, *O. harryanum*, *O. nævium*, *O. luteo-purpureum*, *O. Pescatorei* and *O. gloriosum*. The varieties and hybrids of *O. crispum* alone are a numerous host, and as most are quite easily managed it is difficult to understand why they are not more often found in gardens.

T. W. B.



POPPIES AND SUMMER-HOUSE FROM THE KITCHEN GARDEN AT WESTBROOK, SURREY

SEASONABLE NOTES ON VEGETABLES.

AS fast as the ground is cleared and succeeding crops arranged, it is a good plan to prepare the soil as time permits by trenching, or deep digging, and manuring. For instance, where Broad Beans are to follow early Potatoes, Carrots, or Tripoli Onions, and to be sown early in November, it will be an advantage to prepare the ground while dry, especially if it is heavy in character. The clearance, too, of Pea and Potato haulm, burning it at once, is a good plan, as not only are objectionable disease spores got rid of, but the ashes resulting are valuable.

Celery.—The present is a busy time with this crop, as growth is rapid, and the sundry details should be carried out promptly. Too often Celery does not get enough moisture at the roots; this leads to hard "stringy" material at digging-time, instead of firm, succulent, tender leaf stems. During dry weather it is difficult to give Celery

plants liberally with liquid manure to swell the fruits to their full size.

Cardoons, where required early, should be prepared for blanching, which cannot be done in less than eight weeks. Wind brown paper around the stem, over this clean haybands, and bank up with soil the length required to be blanched. The leaves should be tied together at the top, keeping them straight.

Shallots should be lifted without delay, and laid on a hurdle on a warm border to dry and thoroughly ripen off.

Leeks.—Continue to feed the plants with liquid manure. Draw the brown paper collars up gradually as growth proceeds and blanching below takes place, gradually filling in the space below with fine soil.

Cauliflowers are abundant at this season; they well repay for any extra attention in the way of liquid manure, a mulching of long strawy manure, and ample space given to each plant. Directly the heads form, they should be covered to prevent them being discoloured by the sun. Crack the midrib of the nearest leaf, bending it

all the short straw to assist fermentation. An open shed is the best place to prepare the manure, as it can be kept dry, the rank steam from the heated manure can readily pass away, and the manure become sweetened by frequent turnings. A fortnight will be required to collect and prepare the heap for a good-sized bed. Whatever shape the bed is to be, flat or ridge, the former should be fully 2 feet thick, the latter 3 feet high, with a base 4 feet wide. Build the manure quite firmly together to induce it to develop a temperature of at least 75° to 80°. As the heat declines to the former temperature, the spawn should be inserted in pieces 2 inches square about 9 inches apart, and 2 inches deep in the manure, making the latter quite firm on the surface. The surface of the bed will require soiling over in a week's time after spawning. Well-decayed turfy loam, passed through a half-inch mesh sieve, answers well; this should be put on 2 inches thick and made quite firm. Cover the soil with straw, or stable litter, to prevent it drying too quickly. If it does this, the moisture escapes through the fissures, which is all against success.

Swanmore, Hants.

E. MOLYNEUX.



A VIEW OF THE RACECOURSE GARDENS AT AUCKLAND, NEW ZEALAND.

too much water; the growth cannot well be too luxuriant. The present method of bleaching with brown paper enables the watering to be much longer continued than when soil is used. Six weeks should be allowed for the blanching with paper; two more weeks are required when soil is used.

Seakale should be kept quite free from weeds; the growth is accelerated by frequent hoeing. Examine the crowns, removing all side shoots, leaving one, or at the most two, crowns to each plant.

Peas.—Late-sown varieties like Autocrat are growing sturdily and well. Keep them well mulched with manure, and supplied with water during dry weather. Generally, birds of the tit tribe are more troublesome than any other to late-growing Peas. Place small-meshed netting over the rows. If mildew makes its appearance on the haulm, syringe at once with Seaside.

Tomatoes under glass and those in the open should have all side shoots removed, and the leaves shortened back where they cover the fruits, to enable the sun to ripen them quickly. Feed the

over the head; in this way it forms an effective screen, and is more easily done than drawing the leaves together at the top with bast.

Lettuce.—The final sowing for immediate use should be made in drills on a sheltered border, leaving the plants to mature where sown; this is so much quicker than transplanting them. Later sowings of such sorts as Brown Cos and Black-seeded Bath, with All the Year Round and Commodore Nutt, Cabbage varieties, should be made for planting out in frames for winter and spring use, and also in sheltered places in the open.

Radishes.—Sow Turnip-rooted varieties in freshly watered drills if the weather is dry, and protect from birds directly the plants show through the soil.

Parsley.—A sowing in a cold frame should be made to secure plants for winter and spring use, as in some localities Parsley does not succeed in the open.

Mushrooms.—Preparation should be made for the first beds in the Mushroom house, shed, or cellar, or even in the open at the foot of a north wall. Collect fresh horse-manure, retaining

ISEND you a photograph of the gardens and lawns at the Ellerslie Racecourse, some five miles from the city. The Auckland Racing Club's premises are spacious, beautifully situated, and well appointed and maintained, the horticultural department coming in for very liberal treatment. The principal entrance, nearly 200 yards long, consists of a wide central path for pedestrians, separated by continuous beds from side drives for horses and vehicles, these two drives being flanked by wide borders planted with flowering shrubs backed by native evergreen trees. The lawns are sheltered by handsome trees and Palms, both native and exotic, and brightened by large flower-beds.

At the time this photograph was taken the gardens were very showy in their autumn garb, among the subjects used for bedding being Cannas, Dahlias, Pentstemons, Cosmeas, "Bonfire" Salvias, Begonias, Hollyhocks, Chrysanthemum frutescens, Bouvardias, Veronicas, Hydrangeas and Roses, also various rockwork and carpet bedding plants. Some beds, which shortly before had been gay with tuberous Begonias, had just been replanted with Cyclamens and other spring-flowering plants, and the lawns presented a beautiful sward, having fully recovered from the unusually long dry summer we have just experienced. The Bouvardias were in great variety, their profusion of white, pink and scarlet starry flowers being very effective; while the heads of many of the Hydrangeas were quite a yard in circumference.

The grounds are thrown open at all times except during race meetings, and the residents and general public freely avail themselves of the privilege thus offered.

The gardens make a fine addition to the public parks with which Auckland is well furnished, and which of late years have been greatly improved by the city authorities.

Auckland, N.Z.

A. E. GRINDROD.

RACECOURSE GARDENING IN NEW ZEALAND.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Melons in Frames.—Much care is necessary in the management of Melons growing in cold frames, especially during cold, stormy weather. During these periods it is wise to discontinue wetting the foliage with the syringe. Now that the fruits are swelling, plenty of stimulants must be given. Air must be admitted to the plants with discretion during bad weather. When the fruits commence to ripen, a little air should be left on the frames at all times.

Cucumbers in Frames.—The advice given for Melons in frames in regard to airing may be applied here. The plants must be gone over regularly for the removal of superfluous growth. Cut the fruits before they become too large, and place them in a cool cellar. The plants must be liberally watered, giving plenty of stimulants while they are fruiting. An occasional light dusting of sulphur will keep the plants free from mildew.

The Early Vinery.—If the Vines are to be started early in November, some of the growth must now be removed, to encourage the wood to be perfectly matured before pruning-time. Persevere in the cleansing of the rods, especially if mealy bug is present.

Plants Under Glass.

Calanthes.—The deciduous Calanthes are now full of roots, and their pseudo-bulbs are fast developing. They must now be liberally supplied with water at the roots. Admit plenty of air to the house, and keep the plants well up to the light. They will need shading from the fierce rays of the midday sun, but shading must not be overdone.

Malmaison Carnations.—The young layers should now be sufficiently well rooted to be severed from the parent plants. Leave them a day or two after severing before potting them. A compost of loam, naturally decayed leaf-soil, wood-ashes and coarse sand will be suitable for this potting. Pot firmly and water the plants in at once. A stage near to the light in a cool house will suit them well now. Some of the most promising of last year's struck plants should be potted into larger pots.

Azaleas.—To help the flower-buds to develop, some kind of stimulant is necessary. Diluted liquid manure, soot-water and some approved artificial fertiliser may be applied alternately. Give the plants a vigorous syringing late in the afternoon during hot weather.

Camellia reticulata.—This beautiful Camellia is now forming its flower-buds, and must be given plenty of water at the roots. A little artificial manure, such as Clay's Fertilizer, alternated with soot-water, will be beneficial during this important stage. Where the buds are forming in pairs, one of them should be rubbed out.

Cyclamen.—Towards the end of the month seeds may be sown for raising a fresh batch of plants. Sow in pans of light, sandy soil, placing the seeds about an inch apart. Cover the pans with sheets of glass, and place them in a house of moderate warmth.

The Flower Garden.

Bamboos.—Large specimens of these need water at the roots to assist the development of their new canes. To make sure that the roots get thoroughly soaked, water from the hose-pipe should be allowed to run over them for several hours.

Vases.—Now that the plants have filled the vases with roots, more attention must be given to watering, for if the soil becomes thoroughly dry, the plants are sure to suffer. Some form of stimulant should be afforded at least once a week.

Plants in Tubs.—Attention must be given to watering and feeding, or the plants will not continue to flower throughout the season. Remove seed-pods, dead flowers and leaves, and secure the growths to their supports, or they will be damaged by autumnal gales.

Early Flowering Chrysanthemums.—These are now showing their flower-buds, and must be

afforded plenty of stimulants. Examine the plants carefully for aphids, and syringe with an insecticide as a precaution against this pest, which is unusually plentiful this season.

The Hardy Fruit Garden.

Early Pears.—Some of the early varieties are now ripening, and care must be exercised in sending them in the best condition to the table. Such varieties as Jargonelle and Clapp's Favourite may be used directly they are taken from the trees.

Early Apples.—Such varieties as Irish Peach, Mr. Gladstone and White Joaneting are best eaten from the tree. Lady Sudeley, Devonshire Quarrenden and Beauty of Bath will not keep for any length of time, and it is wise not to grow such kinds extensively for private use.

Figs.—These must be frequently attended to for the removal of superfluous growths. Cut out extra strong growths, retaining those of medium strength and short-jointed. When the fruits commence to ripen, they will need protection from birds and insects. Trees growing against walls must have abundance of water at the roots.

The Kitchen Garden.

Potatoes.—In this district these are promising a heavy crop. All early varieties should now be lifted and placed in a cool shed. Tubers which are needed for sets must be left on the ground for a day or two before storing them for the winter.

Beet.—This crop can now be lifted if the roots are considered large enough. They may be stored in sand or ashes in the open. The heaps must not be made too large, or they will become heated.

Carrots.—Attend to the thinning of young Carrots as soon as they are large enough. About four inches apart should be ample space for Carrots now. Light dustings of soot during showery weather will enhance their progress, as well as keep them free from pests.

Winter Onions.—This valuable crop should now be sown. Sow the seeds in drills about a foot apart. It must be seen to that the ground is quite firm before sowing. Giant Lemon Rocca, Blood Red Rocca and Leviathan may all be relied upon for present sowing.

E. HARRISS.

(Head-gardener to Lady Wantage.)
Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

Plants Under Glass.

Fuchsias.—Where an increase of stock is necessary, cuttings may be put in now. Young plants invariably grow with more vigour and flower freely, so that propagation should take place annually.

Gloxinias.—As the plants pass out of flower, remove from the show house and place in a light position in some frame or on a shelf, where they will be allowed to mature. Water should be withheld gradually. If it is desired to increase any particular variety, a few leaves may be taken off and put in sandy soil, where they will produce corms, which in turn will form plants to flower next season.

Clerodendron fallax.—As this usually produces seed freely, the plants should be looked over twice a week and the seeds picked as they ripen. Plants in flower must be kept supplied with stimulants to retain vigour and lengthen the season of flowering.

Tree Carnations.—Keep the young shoots neatly tied up as growth proceeds. Undue delay often means broken growths, which seriously cripple the plants. Thrip is still a possible pest to contend with, and, if present, fumigations on two successive nights should be given. If red spider is troublesome, some weak salt water sprayed on the plants will usually be sufficient to keep it in check.

The Hardy Fruit Garden.

Wasps.—During some seasons these insects are very destructive among most kinds of fruit. The surrounding ground should be examined for nests, which are usually not very difficult to discover if the course taken by the insects when

flying is watched. The nests must be destroyed during the late evening, when all the wasps are in them. The old method of destroying them with gas-tar is still the safest.

Fruit-Room.—As early Apples and other fruits are now ripening, this building must be thoroughly cleaned out before any fruit is admitted. It should also be well ventilated to ensure a wholesome atmosphere.

Strawberries.—Unless required for stock, the runners should all be kept closely picked off the growing plants, as they quickly impoverish the crowns. Weeds, too, must be well kept under, as they also rob the plants of much of their nourishment. Where circumstances do not allow of a new planting being made at this season, the runners should be carefully taken off and wintered in a border, where they will not occupy much room, until planting-time in the spring.

Fruit Under Glass.

Renovating Vine Borders.—As soon as the fruit is all cut, any Vines which are showing signs of exhaustion should receive attention, as, if given now, the roots will get nicely established in the new soil before the leaves fall. The Vines will then break more freely into growth, and be able to carry an average crop next season. First of all, shade the vinery; then commence lifting the roots carefully, taking extreme care of the small fibrous ones. During the operation keep them constantly syringed and covered with mats. The drainage must be examined and put in proper order before adding the new soil. Keep the vinery closed and well syringed for a fortnight or three weeks afterwards.

The Kitchen Garden.

Cucumbers.—If a crop is required during the winter-time, a few seeds must be sown now. The beds where they are to grow will require to be made up of slightly lighter soil than was used for the summer crops. Plenty of leaf-soil with a little lime refuse will help to keep it open.

Tomatoes should now be encouraged to set as many fruits as possible before the days shorten, as the fruit ripens much slower and will hang for a good length of time when ripe. Carter's Sunrise is a very reliable and free-setting variety for winter work. Outdoor Tomatoes do not ripen freely if the weather is wet and cold, so that they are sometimes better cut and hung in a glass house to finish maturing.

Parsley which was sown in the spring should be partly cut over to encourage new leaves to form for use in the winter. If some of the oldest leaves are removed, it will generally be found sufficient. The crops which were sown during June and July ought now to be thinned, and be given a small quantity of fertiliser if they are not making satisfactory progress.

The Flower Garden.

Dahlias.—Being quick growers, these plants need tying frequently. The growths, too, require regulating and reducing in number if extra fine flowers are desired. There are now so many sections of Dahlias that all tastes can be satisfied. In selecting varieties at this season for another year, it is well not to be entirely guided by blooms exhibited at shows. These are sometimes misleading, as many exhibition varieties make poor garden Dahlias.

Roses.—Mildew is usually bad at this season, and steps should be taken to prevent it developing whenever it is first noticed. There are several very reliable mildew specifics on the market, and they are not very expensive to use if applied with a sprayer. Suckers must be removed as soon as they appear, and all dead flowers picked off.

Violas.—Cuttings should be put in as soon as possible, as when they are rooted early the lights can be removed for a time during October and November; this hardens the young plants. They are then not so liable to damp off or die during the winter. To be successful, the site of the frame is rather important. It must have a south aspect, where it will get all the sunshine there is during the winter. The young shoots arising from the bases of the plants which have not flowered root more readily and make the best plants.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine,
Bart.)

Castlemilk Gardens, Lockerbie, N.B.

VEGETABLE AND FRUIT CROPS IN HOLLAND.

THE Board of Agriculture and Fisheries have received a further report, dated July 17, on the condition of fruit and vegetable crops in Holland from His Britannic Majesty's Consul-General in Rotterdam. The prospects of the fruit crops were, on the whole, satisfactory.

Apples were excellent or very good in most parts of the country. Only from the north-east of Groningen and some districts of Utrecht were moderate reports received.

Pears were very good in the Bommelerwaard, in Lower Betuwe and in Limburg, moderate in Groningen and Friesland, and good to fairly good elsewhere.

Plums.—Only Limburg and the southern parts of Utrecht reported favourably, conditions in the other provinces being from bad to moderate.

Grapes under glass were fairly good in Gelderland and in Overijssel, and good to very good elsewhere.

Peaches under glass were very good at Nijmegen, moderate at Groningen, and good in Gelderland north of the Rhine, Overijssel, Utrecht and in the Westland district; while the open-air fruit varied from moderate to fairly good.

Raspberries were good or very good everywhere.

Onions were fairly good in Groningen, Leeuwarden, Gelderland north of the Rhine and Overijssel; very good near Winschoten, Utrecht and Leiden, and good elsewhere.

Peas were very good at Beverwyk and Leiden, and moderate to good in other parts of the country.

Beans were fairly good in Groningen, Friesland, Upper Betuwe, Zealand and Limburg, and good elsewhere.

Tomatoes were good or very good in most provinces, fairly good in Groningen and Limburg, and moderate near Leiden.

THE PERENNIAL SUNFLOWERS.

In years of scorched and withered vegetation the perennial Sunflowers always prove their claim to a place in the herbaceous border. In years of plenty we are apt to look upon these flowers as coarse and scarcely worthy of consideration; but now, when the Phloxes have shed their fugacious blooms and the bulk of the Michaelmas Daisies and early Chrysanthemums are in the bud stage, we are only too glad to welcome the bright yellow blossoms of the perennial Sunflowers. That refined, tall and graceful variety Miss Mellish is, always a beautiful sight, and in common with other members of the family appears to have been quite happy during the protracted heat and drought of June and the subsequent rainy spell. H. G. Moon, though not so well known, is equally good, and possesses the additional merit of a dwarfer habit, attaining a height of about four feet. True, its flower-stems are not quite so long, but as a border plant it is almost unequalled in its kind. Of similar height is *Helianthus rigidus grandiflorus*, the Prairie Sunflower, the beautiful golden yellow flowers with their central boss of brownish crimson creating a bright patch of colour even when planted in the poorest soil. Apart from their value in the garden during a dry season these perennial Sunflowers are admirably adapted for indoor decorations. They should, however, be cut early in the morning, have their stems slit upwards for about two inches,

and then be immersed in water for two hours. Treated thus, they seldom fail to take up sufficient moisture when placed in vases to keep them fresh for several days. Unless this or some other special treatment is given, the flowers have a tantalising habit of drooping when cut and placed in water.

THE SOPHORA TREE.

ONE of the most interesting of our hardy trees during September is *Sophora japonica*. Although this was introduced to this country as long ago as 1753, it does not appear to have become very popular, as it is seldom that really good specimens may be seen. It forms a large, spreading tree of symmetrical form, and during September is covered with its racemes of creamy white, Pea-shaped blossoms. This year, in common with many other little-known trees and shrubs, it is giving promise of a good display. The dark green pinnate foliage provides a pleasant setting to the delicate-coloured blossoms, the buds of which are sometimes used by the Chinese for dyeing materials yellow. A much newer *Sophora* to this country, and one that also hails from China, is *viciifolia*. This has much smaller and more finely cut pinnate leaves, and the racemes of flowers are also on a smaller scale, these being pale lavender or mauve in colour. Plants at present in this country have only attained the dimensions of large, spreading, slightly spiny shrubs, and it is doubtful if they will ever make large trees. These *Sophoras* appear to appreciate well-drained, warm soil.

H.

BOOKS.

School Gardening.*—During the past twenty years a great change has come over our system of education. The three "R's" only a few years ago were considered the Alpha and Omega on school work. The system, however, that finds more favour to-day is learning by doing. The kindergarten system is largely responsible for the advance of this method of teaching, and the introduction of woodwork, domestic subjects and gardening is simply an extension of handwork from the lower to the higher standards. Gardening has not been introduced into schools with the idea of turning out thousands of gardeners every year; but it has for its object the training of the hand and eye, and more particularly the training of the powers of observation, without which no child can make real progress in any subject. Gardening has its utilitarian side, too, and many a future gardener and small holder will be grateful for the practical training he received at school; and in many cases the first desire for gardening as a profession may be traced to the school lessons in this special subject. Mr. Logan, in the book under review, has grasped the true meaning of school gardening as distinct from gardening in the broader sense. The lessons are well thought out, and teachers will find very much to help them, not only in the management of the garden, but in the science lessons of the classroom. The questions given at the end of each chapter are excellent, and the children should be encouraged to answer these from their own observations. Gardening, if taught on the lines suggested by

* "School Gardening," by Alexander Logan. London: Macmillan and Co.; price 1s. 6d.

Mr. Logan, should not (as some people still imagine) hinder progress in such subjects as drawing, brushwork, arithmetic and composition, but should make these more practical and real.

Generally speaking, the book is well written and free from errors; but he would be a clever man indeed who could produce a perfect work. On page 38 children are advised to make drills for small seeds with the fingers or small wooden pegs. We think this is impractical. Again, we fail to see why it is necessary to obtain a seed catalogue for school work from a wholesale firm, as advised on page 36. We cannot agree with the list of tools for twenty boys as given in the appendix, even on the score of economy. To quote one example, ten Dutch hoes are recommended for twenty boys, or one between two workers. Mr. Logan in another part of the book emphasises the necessity for constant stirring of the surface soil during the summer, and our experience shows that there is no better tool for this purpose than the Dutch hoe.

The Mutation Factor in Evolution, with Particular Reference to *Oenothera*.*—How do new plants arise? What is the real origin of new characters in plants and animals? These questions have puzzled men since the beginning of intelligent acquaintance with living things. Many are the theories which have been brought forward, great the volume of words which have flowed, and are we yet any nearer to the solution of the mystery? Lamarck, Darwin, Weissmann, de Vries, Mendel—all have been hailed as the discoverers of the true source of origin of species. None has proved sufficient to explain all things, but each has stimulated thought and experiment, and perhaps each has brought nearer the day when we shall be able to understand why and how plants take on new forms; but the full knowledge is not ours yet. The author of this lucid exposition of one of the factors of evolution—"the mutation factor" as its developer, de Vries, called it—has done much to clear up difficulties in the way of accepting the idea he explains, for he has shown that the "mutations" (which are almost the same as sports, perhaps exactly the same, but arising from seed) are an outward expression of profound changes in the constitution of the most intimate parts of the cell, and he has produced a most interesting and instructive book which no student of plant life from an evolutionary standpoint and no breeder of plants along scientific lines can afford to ignore or pass with scant concern.

THE EDITOR'S TABLE.

Buddleia Colvillei from Middlesex.—Mr. F. M. Elgood of The Close, Northwood, R.S.O., Middlesex, sends a flowering spray of *Buddleia Colvillei*. This certainly does not flower very freely, except in the Southern and Western Counties, although we have seen it at one or two places in Suffolk. Mr. Elgood writes: "I send for your table a spray of *Buddleia Colvillei* from a plant which has been in my garden for three years, but has not previously flowered. It appears to be the only flower this year on the plant, which is now about six feet high and as much across. A native of the Sikkim Himalaya, the shrub was discovered by Sir Joseph Hooker in 1849, who described it

* "The Mutation Factor in Evolution, with Particular Reference to *Oenothera*," by R. Ruggles Gates, Ph.D., F.L.S. 8vo, xiv. + 353 pp. London: Macmillan and Co., 1915; price 10s. net.

as 'the handsomest of all Himalayan shrubs' (*vide* Mr. W. J. Bean's book). As it is probably unusual for it to flower in England north of the Thames, I thought you might be interested to see it. The plant is growing quite in the open, unprotected, except by other shrubs, and the subsoil is clay."

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

Offices: 20, Tavistock Street, Covent Garden, W.C.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

DIVIDING VIOLETS (R. N. S.).—If you will take our advice, you will not rely on divided examples of these plants at all, and for preference make cuttings of the unflowered runners that are so plentiful in September or thereabouts. By inserting these 2 inches asunder in sandy soil in a frame at that season, they make ideal plants for putting out the following early April in well-cultivated ground. Divided stock at any season is starting with partially exhausted stock; whereas the unflowered runner, apart from the advantages of youth and vigour, possesses the additional advantage which the concentration of the entire energies of the plant to a solitary crown affords, and, while not inconsiderable, also ensures perpetual youth if indulged in from year to year. Moreover, it is both a simple and easy—it is also the best—means of propagating these plants.

TREES AND SHRUBS.

BUDDLEIA VARIABILIS MAGNIFICA (*An Incomplete Gardener*).—The best way to treat this shrub is to cut it hard back in the spring, say, about the second week in March. This will induce it to form strong young growths, which will flower in the August of the same year. If pruned in the autumn, new growth is apt to be formed rather too early in the spring, and is liable to become damaged.

INFORMATION ABOUT ROBINIA (K. J., *Balham*).—The Robinia shoot described in your letter is evidently a shoot of *R. Pseudacacia*, *R. hispida* being frequently worked upon it. It ought to be removed at once. *R. Pseudacacia* is, of course, the False Acacia of gardens. The Manna Ash bears a seed similar in shape to that of the common Ash, but it is smaller and borne in larger clusters than the fruits of the ordinary Ash. The Manna Ash can be procured from any of the principal nurserymen in this country.

TRIMMING A HOLLY (C. E. C.).—Yes; it is possible to trim an old Holly into shape. The best time for the

work is April, for if it is cut fairly hard at that time and many of the leaves are removed, new shoots will soon appear; whereas if it is cut hard back now, it will remain leafless and ugly all the winter, and the ends of some of the cut branches will most likely die. Hedges, however, that simply require clipping may be pruned now. It is unwise to clip specimen Hollies severely; they present a much better appearance if the branches are left free and natural. We therefore advise you to remove the inequalities of growth and tie some of the lower branches into position to help to fill the space made by the crowding of other shrubs, but not to try to secure a hard, formal outline. As a rule, the inequalities can be reduced by thinning the branches well in the places where they are overgrown.

INFORMATION ABOUT YEW HEDGE (C. E. C.).—Providing your Yew hedge appears to be well established it may be lightly clipped at the present time; but if it is not very ragged, it would be as well to defer the work until next April. The top ought certainly to be cut back a little, for that will tend to thicken up the lower parts of the hedge; in fact, your main object for two or three years should be to encourage the filling up of gaps. Branches tied across openings will usually accomplish that. After you have once secured a well-furnished base, the addition of height growth will become a very simple matter. As soon as the flowers of a Lavender hedge are over, the flower-stalks should be cut back to the branches. A little pruning should be done in February to regulate growth, but no other pruning will be necessary. Pruned in such a way, the flowering will not suffer.

ABOUT CLIMBING PLANTS (*Subscriber*).—Hydrangea petiolaris is a self-clinging, close-growing climber that would do very well against either your house or the other wall; it is, however, deciduous. There are few close-growing evergreen climbers outside the Ivy, most of the plants used for the purpose being bushy plants adapted for walls. *Pyracantha coccinea* is a very useful and beautiful evergreen. It flowers well in May, and produces orange scarlet fruit in the autumn. We advise you to use that with a plant of *Wistaria multijuga alba* if you have room for it. There are many nurserymen who make a speciality of climbing plants, but most of them deal in small plants only. Any nurserymen who advertise in THE GARDEN can be depended upon.

IVY PLANTS FOR NEW WALLS (M. C.).—Any good loamy soil will be quite suitable for your Ivy plants. Dig the ground over for a space of 2 feet square, and have a space of 9 inches to 12 inches left clear round the base of each plant when the pavement is put down. The distance apart to place the plants will depend entirely upon the size of those you procure. About three feet apart would, however, do very well. Plants in pots can be procured, and they could be planted at once. Water well until they are established and new roots formed. Do not make the ground very hard at planting-time, although it must be well firmed about the roots. If the soil is good, there is no necessity to add manure to it. If poor, however, well-decayed farmyard manure should be used.

THE GREENHOUSE.

GERANIUM BLOSSOMS BRANCHING (M. M.).—We cannot give information to anonymous correspondents (see rules). If you send your name and address and repeat questions we shall be pleased to assist you.

PANCRATIUM FRAGRANS LOSING FRAGRANCE (J. S.).—We have never met with a case of *Pancretium fragrans* becoming less fragrant year by year, and can, unfortunately, throw no light on the matter. Furthermore, we have taken the opinion of successful cultivators of these plants, and as such an experience has not fallen to their share, they are unable to enlighten us. Are you sure that the individual plants which throw up such enormous flower-heads are those whose fragrance used to be so remarkable? If so, the case of your *Pancretiums* must be put down as parallel with that of the common Musk, which in most districts seems to have lost its old-time perfume.

CLIMBING PLANTS FOR VINERY WALL (*Enquirer*).—*Plumbago capensis* stands fairly well when cut, but we think the great objection to it is that it flowers in the summer, when the Vines are at their densest. You ask for other Geraniums, and we would suggest *Souvenir de Charles Turner* (Ivy-leaved) and one of the strong-growing members of the Zonal section, such as *Le Colosse*, clear red, semi-double. Under the conditions named you would have no more continuous-blooming subjects than *Abutilons*, of which *Boule de Neige* (white) and *Golden Fleece* (yellow) can be especially recommended. *Clematis indivisa*, which bears a great profusion of star-like white blossoms in the spring, might suit your purpose, or *Rhynchospermum jasminoides*, whose white, Jasmine-like, highly fragrant blossoms are borne early in the year. This last will in time clothe a wall beautifully, but in its earlier stages it is of rather slow growth.

CARNATION MRS. H. BURNETT SPORTING (J. J. C.).—The blooms of the Perpetual-flowering Carnation Mrs. Burnett are not affected by any disease, but you have simply obtained a sport, and have undoubtedly lost your true stock by propagating the sport. Darwin said, "of all the causes which induce variability, excess of food, whether or not changed by Nature, is probably the most powerful." Many of our best varieties in commerce to-day are sports; for instance, *Salmon Enchantress* and *Enchantress Supreme*. As a rule, a variety throws off these sports when it is becoming old. In some cases

they are valuable, but in your case useless, being much inferior to their parent. Furthermore, it is quite common for Carnation Mrs. Burnett to behave in the manner it has done with you. Lady Northcliffe and Empire Day are both superior varieties to Mrs. Burnett.

FRUIT GARDEN.

APPLE SHOOT WITH RING (*Cenymen*).—The ring is a ring of eggs of the lackey moth. This moth always lays her eggs on the caterpillars' food plant in this bracelet fashion. All such rings should be cut off and promptly burned.

NECTARINE RIVERS' EARLY SPLITTING (J. H.).—The following are the chief causes of Nectarines splitting: (1) Heavy watering at the time the fruits are reaching maturity, causing too rapid a circulation of sap for the moment. The last heavy watering should be applied before they arrive at this stage, applying at the same time a mulching of half-decayed manure to the surface of the soil over the roots. By doing this the soil will retain sufficient moisture to carry the tree through until the fruit has been gathered. (2) Too high a temperature and too close and moist an atmosphere at this stage will have the same result. (3) Wet, close and muggy weather, such as we have had for so long, unless the precaution is taken of occasionally drying the air when it is very bad by applying heat to the hot-water pipes. (4) Sometimes too light a crop is responsible, especially on young and vigorous trees, the roots pumping up more sap than the fruit can assimilate.

KITCHEN GARDEN.

MAKING A KITCHEN GARDEN PATH (E. M. Wild).—A fairly satisfactory path can be made of tar and clinkers or cinders. After making a good bottom of hard material, such as bricks or large clinkers, take cinders or clinkers broken into about inch pieces and remove the dust; then mix the whole with boiling tar and spread while hot. Roll with a wet roller, and on the surface place about half an inch of finer cinders mixed with tar in the same way. Roll it well, and, when set, spray the surface with boiling tar, over which fine sand should be sown at once and then rolled. Do not use the path until it is well set. Should the surface fracture in a year's time, spray again with hot tar and cover with sand.

HERBS AND THEIR CULTIVATION (C. E. C.).—Herbs can be grown in any good kitchen garden soil. It is usual to give up a border to them, as they are more easily looked after when grown together. Each kind should be isolated, and the weaker ones should be so placed that they are not likely to be crowded by coarser-growing neighbours. It is wise to renew the plants occasionally, as young plants are usually more satisfactory than old ones. The crop may be gathered when fully developed. As a rule, when flowers are showing is a suitable time. Tie the stems in small bundles and hang them up against a wall or in an airy shed to dry. Those that are hung outdoors should be removed to shelter on the approach of wet weather. When thoroughly dry, they may be powdered and placed in jars, or be hung up in a dry room for winter use.

INFORMATION ABOUT VEGETABLES (Mrs. G. M. V.).—Giant Rocca Onions should be pulled up now and ripened on the ground in the sun like ordinary Onions. You will find they will not keep very long, and should be used or sold before the winter. Tripoli and White Italian Onions may be sown now. Plant out as many as you require in October or any time during the autumn. These will stand the winter where planted, and come into use next year the same time as the Giant Rocca is doing this year. After you have planted all you want, thin out those left in the seed-bed to within 10 inches apart. They will come in at the same time. The thinnings may be bunched and sold, or given away. They will be of no use for pickling. Onions sown now for pulling in a green state through the autumn and winter would be saleable if bunched and marketed. In that case they would not require thinning in the ordinary way, but should be pulled up, bunched and sold as soon as large enough. There is nothing better than the Giant Rocca for this purpose. As regards Brussels Sprouts, the larger and stronger the plants are, the better. Do not cut them in any way.

MISCELLANEOUS.

KEEPING CATS OFF PLANTS (*Hall*).—We do not know of any preparation that will keep cats off plants if the animals can get into the garden. We keep a well-trained Irish terrier, who does the duty effectively. Perhaps some reader may have found some substance that can be effectively sprayed over the plants; if so, we shall be glad to publish it. A tax on cats would be welcomed by garden-lovers.

NAMES OF PLANTS.—Mrs. Norris.—*Dendrobium moschatum*; seedling *Geranium*, cannot match.—G. R. P.—*Nicotiana rustica* (Syrian Tobacco), not native; *Galinsoga parviflora*, introduced from North America.—L. H.—1, *Thuya plicata* (Lobbi); 2 and 3, *Cupressus lawsoniana*; 4, *Juniperus virginiana*; 5, *Cupressus lawsoniana*; 6, *C. pisifera*; 7, *C. p. squarrosa*; 8, *C. lawsoniana*; 9, *C. lawsoniana* variety; 10, *Cydonia japonica*; 11, *Crataegus Pyracantha*; 12, *Yucca gloriosa*.—W. H. S.—1, *Cupressus macrocarpa*; 2, *Deutzia scabra* flore pleno; 3, *Abies nobilis glauca*; 4, *Olearia Haastii*; 5, *Desfontainia spinosa*; 6, *Begonia fuchsoides*; 7, *Sedum spectabile*.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

THE outstanding feature of this meeting, held on August 17, was the remarkable exhibit of vegetables from Elstree, which has probably never been equalled. Hardy flowers were prominent and good. Orchids were in a minority, though several excellent novelties were on view and received awards.

FLORAL COMMITTEE.

Present: H. B. May, Esq. (chairman), and Messrs. W. H. Page, J. W. Moorman, George Harrow, J. W. Barr, W. J. Bean, E. A. Bowles, John Green, G. Reuthe, T. Stevenson, J. F. McLeod, J. Jennings, Charles Dixon, Arthur Turner, Charles E. Shea, J. T. Bennett-Poë, C. E. Pearson, G. Paul, J. Hudson, E. H. Jenkins, W. P. Thomson, J. Dickson and R. Hooper Pearson.

As demonstrating the exceeding splendour, value and longevity of the herbaceous Phloxes in a year congenial to their needs, Mr. James Box, Lindfield Nurseries, Hayward's Heath, again staged a superb bank of them in the highest perfection. Though of the greatest decorative value in the garden, they are highly ornamental in the exhibition arena, and of exceptional value when cut for home decoration; hence are among the indispensables of the garden. Some of the more imposing masses were *Widar* (Parma violet, with white centre), Dr. Königshofer (brilliant orange scarlet), Frau Ant. Buchner (white, immense truss), Mrs. E. H. Jenkins (snow white), Tapis Blanc (one of the purest whites, and dwarf withal), Fort de France (rosy salmon) *Violetta* (very large), Gloire de Maroc (fine late purple), Météore (salmon pink, white centre, one of the best), General van Heutsz (scarlet), Dr. Charcot (violet, with lighter centre), Arthur Rauc (fine salmon) and Mme. Vopelius (white, suffused salmon). Mr. Box also staged seedling varieties of great promise. In another group were staged a considerable variety of herbaceous plants, such good things as *Asclepias tuberosa*, *Sparaxis pulcherrima*, *Stenanthium robustum* (with graceful white plumes), *Potentilla Gibson's Scarlet*, and *Delphiniums* being well shown. The group was bordered with hardy Heaths in variety.

Messrs. W. Cuthbert and Sons, Highgate, N., were responsible for a flowering group of herbaceous plants, arranging imposing masses of many seasonable things inclusive of *Gladioli* and *Lilies*. Of the latter we noted good flowering examples of *L. Henryii*. Of *Gladioli*, the pink-flowered *America* rose up in a great pyramid in the centre, and with *Artemisia lactiflora* and *Bamboos* constituted quite a feature. *Dracopcephalum imbricatum* (spikes of rose-coloured flowers) and *Veronica verticillata* (white) were also noted. Phloxes were well shown, and *Crinum Powellii* was in excellent condition.

Mr. J. C. Allgrove, Middle Green, Langley, Slough, staged a superb gathering of *Thalictrum Delavayii*, without doubt the most elegant new hardy plant seen for many years. Four feet or five feet high and endowed with elegant Fern-like foliage, the wealth and profusion of its deep mauve coloured flowers render it both graceful and unique. *Podophyllum Emodii* and *P. E. Purdom's* variety were both shown.

Messrs. J. Cheal and Sons, Crawley, filled a table with examples of cut shrubs and herbaceous plants, the former including *Buddleia variabilis magnifica*, *B. v. amplissima*, and *B. v. veitchiana*. *Ceanothus Gloire de Versailles*, *C. Ceres*, *C. Arnoldii*, and the rather uncommon *C. albus plenus*, which, by the way, is of a pinky shade, were all beautiful. *Hypericum moserianum Henryii* (rich golden) forms a lovely bush 4 feet high, covered with golden orange flowers. *Catalpa bignonioides purpurea* was also interesting and good. *Hippophaë salicifolia* and *H. rhamnoides* were both on view. *Tricuspidaria dependens* (white flowered) was also noteworthy. The herbaceous section included Phloxes and the Crawley Dahlias in variety.

Mr. John Pigg, Royston, Herts, staged a splendid lot of Roses, arranging a great centre of Mme. Edouard Herriot, of splendid colour and in the pink of condition. Duchess of Wellington (rich yellow), Mrs. Andrew Carnegie (white), Mme. Hoste (creamy white), Lady Pirrie, and Rayon d'Or (rich golden) were also in imposing groups. Irish Elegance was also very charming among many sorts.

Messrs. H. B. May and Sons, Edmonton, arranged a table of greenhouse plants and flowers, the dominant feature of which were groupings of well-grown *Bouvardias* in variety. The best of these were Hogarth fl. pl., *Humboldtii corymbiflora*, President Garfield, Elegans (scarlet), President Cleveland (rich scarlet), Prior Beauty (fine pink), and Princess of Wales. The compact bushes were covered with flowers.

Messrs. John Peed and Sons, West Norwood, S.E., had an excellent table of tuberous Begonias, evidencing a capital strain of these popular greenhouse flowers. Excellent in variety, good cultivation was also demonstrated. White, yellow, salmon, orange, scarlet, and crimson were among the chief colours shown.

Mr. W. Wells, jun., Merstham, filled a table with cut spikes of *Delphiniums*, the result jointly of a second flowering and spring-divided stock. It was an object-lesson of some importance to the gardener, and those desiring a succession of these indispensable garden flowers should not overlook it.

Messrs. James Kelway and Son, Langport, again showed an excellent lot of *Gladioli*, arranging a double table, which formed a great attraction. The large-flowered kinds were much in evidence, and in their great variety, constituted a feature of the exhibition. Prince of Orange, Mrs.

Asquith (creamy white), *Empoclus* (salmon scarlet), White Swan, Eugen Sandow (scarlet, white throat), Flame of War, Lady Aberdeen (yellow, cream and rose), Golden Measure (very handsome), Mrs. G. W. Willock (white, suffused rose), and Lady Muriel Digby (soft primrose, crimson feathered base), were among the more important. The hybrids from *primulinus* were also a noteworthy feature.

The Misses Hopkins, Shepperton-on-Thames, displayed alpine and hardy plants in season.

Mr. G. W. Miller, Wisbech, displayed an extensive collection of herbaceous and bulbous plants. Notable things included *Lilium Henryii*, *Commelina celestis* (rich blue), *Origanum pulchrum*, *Veronica subsessilis*, *Eucomis punctata*, *Veratrum nigrum*, *Delphinium Belladonna* giganteum and *Agapanthus albus*. Hybrid *Verbascons* were well shown, as were also Phloxes.

Phloxes, *Senecio veitchiana*, *S. Clivorum*, *Veronica subsessilis*, *Gaillardias*, *Geums* and *Cimicifuga simplex* were the chief of an exhibit from Messrs. Rich and Co., Bath. *Crinum intermedium* was also well shown.

Mr. G. Reuthe, Keston, contributed a variety of hardy plants, alpine and shrubs. *Escallonia oregana* (pink), *Berberidopsis corallina*, *Erica maweara*, *Astilbe simplicifolia* (fairy racemes of pinky white flowers), *Origanum Siphyleum* (a very charming plant), *Magnolia fusca*, *Eucryphia pinnatifolia*, *Erica ciliaris* and *Crinums* were among important things.

Messrs. R. H. Bath, Wisbech, had a superb exhibit of *Lobelia cardinalis* de Brinsen, a delightful variety with coppery foliage and brilliant rosy carmine spikes of flowers: a glorious plant for the summer garden in cool, moist places.

FRUIT AND VEGETABLE COMMITTEE.

Present: J. Cheal, Esq. (chairman), and Messrs. W. Bates, J. Willard, Edwin Beckett, A. Grubb, A. R. Allan, A. Bullock, J. Jacques, E. A. Bunyard, Owen Thomas and W. Poupert.

Messrs. Bide and Sons, Alma Nurseries, Farnham, showed Tomato The Recruit in very fine form. Of moderate size, it is also of good colour, and by the bunches shown is a great cropper.

The Hon. Vicary Gibbs, Aldenham House, Elstree (gardener, Mr. E. Beckett), sent a superb collection of vegetables, every item of which was the acme of perfection. Comprehensive and embracing in the highest degree, the excellence of the exhibits commanded attention before all else, and it is doubtful if even Mr. Beckett has ever displayed finer produce. Everything the garden is capable of producing was contained in the exhibit, though we may select Peas Alderman, Quite Content, Gladstone and Duke of Albany as representative of this great race. Tomatoes Peachblow (of a novel colour), Perfection, Duke of York, and Coronation (golden) were very fine. Intermediate and Long Carrots were superb; while Leeks, Marrows, Onions and much more was in high excellence. A feature of the exhibit was the remarkable colour effect produced, and in this respect we do not remember to have seen anything half so fine. This was chiefly produced by Capsicums, Tomatoes, Beans, Carrots and other things, the perfect blending of all constituting one great harmonious whole. A gold medal was deservedly awarded, with a Lindley medal for culture.

ORCHID COMMITTEE.

Present: Sir Harry J. Veitch (chairman), Sir Jeremiah Colman, and Messrs. J. O'Brien, Gurney Wilson, W. Bolton, R. A. Rolfe, R. Thwaites, Pantia Ralli, T. Armstrong, Walter Cobb, J. Charlesworth, W. H. Hatcher, J. E. Shill, C. H. Curtis, W. P. Bound, Arthur Dye, W. H. White and S. W. Flory.

Messrs. Sander and Sons, St. Albans, showed *Anguloa Cliftonii*, *Brassia foetida*, *Cattleya aurea*, *Laelio-Cattleya Irenus*, *Vanda teres Andersonii*, *Anguloa burnea* (white) and *Cœlogyne mooreana* among many interesting kinds.

Messrs. Stuart Low and Co., Enfield, had excellent examples of *Cattleya gigas*, *Cattleya hardyana* His Majesty, *Aerides Fieldingii* and *Odontoglossum nebulosum* (white, dark spotted at base) with *Odontiodas* and others.

J. Gurney Fowler, Esq., Tunbridge Wells, had an exceedingly choice lot of novelties, *Cattleyas* being prominent. *Odontoglossum President Poincaré* is an exceptionally dark variety with white-lobed lip.

Messrs. Charlesworth and Co., Hayward's Heath, had some lovely *Odontiodas* and *Odontoglossums*, with *Cattleya gaskelliana alba* and others.

Messrs. Hassall and Co., Southgate, N., showed three excellent forms of *Cattleya Sybil*, crosses between *C. aurea* and *C. iridescens*. They were very beautiful and distinct.

AUCHENCAIRN FLOWER SHOW.

DESPITE the war conditions, a bright little flower show was held at the seaside watering-place of Auchencairn, Kirkcudbright, a few days ago, and commanded a good measure of support from exhibitors and visitors. The entries were almost up to the usual; the quality was high; and the only weak section seemed to be that for pot plants, which were neither strong in numbers nor in quality. Vegetables were an excellent feature, and Potatoes, Peas, Cabbages, and Onions were capitally shown. Fruit was finer than usual; and cut flowers were excellent, especially the Sweet Peas and Roses, though the competition in the latter was small. It is unnecessary to detail the prizes, but it may be said that Mr. W. Haining, Drungans, was the most successful in the show, and that the same exhibitor won the prize for the best basket of five varieties of vegetables. Other leading winners were Mr. R. Clark, Mr. J. M'Sherry, Mr. W. Alexander, Mr. J. B. Moodie, Mr. A. Campbell, Mrs. Carnochan, and Mr. J. M'Kie.

HIGHCLIFFE GARDENERS' ASSOCIATION.

THERE was a good attendance of the members of this association on Monday, August 9, when Mr. W. Marjoram, gardener to Sir Alfred Cooper, Ossemsley Manor, gave a lecture on "The Shanking and Shrivelling of Grapes." The lecturer first referred to neglected Vines, old ones with roots growing in a cold subsoil, and advocated lifting of the roots in the autumn, keeping them moist while exposed, wrapped in wet mats, spreading them out in new fibrous loam near the surface, and making the soil very firm. All long, bare roots should be notched before they are replanted. Mr. Marjoram advocated narrow borders not more than 4 feet wide for young Vines the first year. There must be good drainage, and the soil should be well firmed. Organic manure should not be put in, but wood-ashes. The new rods should be short-jointed, of medium thickness, and well ripened. The lecturer said he gave very little front ventilation before the Grapes began to ripen, and not much air at night, except in the case of Madresfield Court; but in all cases he urged the need for early morning ventilation. His object was to prevent the Grapes being chilled, and for this reason, too, he used water that had been exposed to the temperature of the house for a time, and not from underground wells.

There was a free discussion at the close of the lecture, Mr. Marjoram ably answering numerous questions put to him. Messrs. W. Goddard, W. Weaver, G. Garner, Griffin, Rogers, J. Murray and E. Bell took part in the discussion. Votes of thanks were cordially passed to the lecturer and the chairman, Mr. Cuell.

East Anglian Horticultural Club.—At the August meeting of this club a paper was given by Mr. T. Notley, gardener to E. Gurney Buxton, Esq., Catton Hall, which he styled "Melon Notes." It did not take long for the hearers to grasp the fact that Mr. Notley was dealing with the subject in a most practical manner and from every point of cultivation. The matter was afterwards threshed out more fully by an excellent discussion. There was a good exhibition, a class for the true old type of Crimson Clove Carnations being a notable feature.

United Horticultural Benefit and Provident Society.—The monthly meeting of this society was held at the Royal Horticultural Society's Hall on Monday, August 9, Mr. Charles H. Curtis in the chair. Three new members were elected. One member withdrew £2 14s. 6d., double the amount of interest. The sum of £74 6s. 9d. was passed for payment to the nominee of a deceased member, and one member was granted 5s. a week for life from the Distress Fund. The sick pay for the month on the ordinary side amounted to £56 10s. 3d., on the State Section to £24 15s., and maternity claims to £12. Two hundred and ten members are now serving with the Forces, and an important new rule is under discussion regarding the contributions and benefits of these members.

The Countess of Selkirk's Garden Prizes.

The Countess of Selkirk having again continued her prizes for the best-kept gardens in the Kirkcudbright district of the late Earl of Selkirk's estates, they were awarded the other day. Mr. William Hutchinson, gardener to C. E. Galbraith, Esq., Terregles, with the co-operation of Mr. W. McGuffog, Lady Selkirk's gardener, acted as judge. The gardens were, as a rule, in excellent condition, and reflected much credit on the competitors. The prizes in the St. Mary's Isle section went as follows: First, Mrs. Dorrance, Mute Hill; second, Mrs. Grahame, Auchenfleur; third, Mrs. Tait, Mute Hill; fourth, Mrs. Kelly, Burnfoot; very highly commended, Mrs. Dorrance, The Stell; highly commended, Miss Dickson, The Doon; commended, Mrs. Johnstone, Mrs. Thomson, Mrs. M'Lellan and Mrs. Milligan. Balmae section: First, Mrs. Boyle, Craikness; second, Mrs. Caldwell, Dromore; third, Mrs. M'Lellan, Dromore; fourth, Mrs. Beattie, Balmae Stables.

THE GARDEN.

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AUGUST 28, 1915.

NOTES OF THE WEEK.

"The Garden" in the Fighting Line.—

On page 421 we publish a letter from Private H. W. Bennett, gardener to Colonel Parker, Chapel-en-le-Frith, Derbyshire, in which he describes a very interesting method that he used to adopt to obtain new Potatoes during the winter months. We think it speaks well for the spirit of our soldiers that they should, while engaged in fighting for their country, still retain a keen interest in matters relating to horticulture. It will be noticed that Mr. Bennett states that copies of THE GARDEN would be welcome to a great many of the men at the Front, if people in this country would send them out. We are having some copies despatched to our friend, and we hope all our readers who have friends or relatives at the Front who are interested in horticulture will post copies to them regularly.

Narcissus minimus.—At once the smallest and dwarfest of trumpet Daffodils, and probably also the earliest to flower, this dainty miniature kind always commands attention when, from almost grassy blades at 3 inches or so high, the rich golden yellow flowers appear in February or March. As perfectly modelled as the finest of its race, it is as worthy the attention of the cultivator as the best, though its sphere of usefulness would not lay in the same direction. For the alpine house or rock garden, however, it is one of the most fascinating of early flowering plants, and as such receives a fair share of admiration. By reason of its dwarfness and small size it should be freely colonised in the rock garden and allowed to become established. The late Peter Barr, on a tour in Spain in 1887, found it growing among Gorse; hence rich soils would not appear to be to its liking. It is, however, not greatly fastidious, and thrives in sandy loam, or this mingled with peat. Flowering so early in the year, it is important to plant early—not later than September. Happily, it is one of the cheapest, and may be indulged in by the hundred or thousand at small cost.

Viola bosniaca.—This small Viola is a new species from Bosnia. It is very floriferous and is easily raised from seed, from which it evidently comes quite true, or with so little variation as "makes no matter." It blooms the same season

as it is sown. Although we have not wintered it, it is given in seed lists as a hardy perennial. Its colour may be described as a rose with just a suspicion of blue in it. When the flowers first open, they have a small white eye; but it dies out with age. It grows about two inches in height and spreads quickly. It ought to be as popular as the famous *V. gracilis*.

An Early Sunflower.—*Helianthus Nuttallii*, a little-known species of Sunflower, is the earliest to flower in our gardens, and for this reason should be more often seen. About three feet high, the stems are sufficiently substantial for exposed sites without tying. It is very ornamental, not particular in its requirements, and is

make charming subjects as pot plants in early spring, and they are among the most satisfactory of flowers for cutting, as they last so well in water, and their erect, non-branching habit lends itself admirably to effective arrangement. The most pleasing of the four varieties is the white and orange, which is known in lists as *S. retusus albus*. It comes fairly true from seed. Seed for pot work in spring should be sown at any time now.

A Good Early Dessert Apple.—Why is it that so many good varieties of fruits, vegetables and Roses exist for years without getting better known? How many of our readers know or grow Apple Langley Pippin? A tree that we planted about five years ago on the advice of Mr. J. C. Allgrove, who has now taken over the fruit nursery of Messrs. J. Veitch and Sons at Langley, is this year carrying a crop of about a bushel of excellent dessert fruits. These are of medium size, pale yellow, striped with red, very crisp and sweet. They commence to ripen the second week in August, and continue until about the middle of September. When sent out by Messrs. Veitch, this splendid early Apple, said to be the result of crossing Cox's Orange Pippin with the variety Mr. Gladstone, received an award of merit. It is the best early dessert variety we know.

Nemesias.—These may fairly be classed among modern annuals. Not only is it a comparatively short time since the *strumosa* hybrids were first put into commerce, but no flower has had



AN ESTABLISHED COLONY OF NARCISSUS MINIMUS. BULBS MAY BE PLANTED NOW.

very valuable for cutting, its golden flowers commencing to come in June and continuing until September. It is a native of North-West America, whence it was introduced in 1899.

Schizanthus retusus.—No *Schizanthus* is better adapted for growing as a pot plant for early flowering under glass than *retusus*. Yet it is not nearly so much grown as are the hybrid forms of *pinnatus* and *wisetonensis*. The colour of the type is what might be described as a glowing rose, with a rich orange blotch on the prominent upper petal. There are, however, varietal forms, one of which is a pure rose self, while another is a pure white, and, a third, a white with a similar orange blotch to that of the type. All of them

more improvements made in it by careful selection, crossing or hybridisation with new species. We have lately noticed in several gardens that some varieties have stood the wet weather of July and August very well. We hope our experience is general, for no annual is more pleasing, and not many are more lasting. The pretty little dainty Blue Gem is charming where pale blue flowers are wanted; while the orange of the more robust and manly looking Orange Prince makes a very striking and effective patch of gay colour. These are two of the best of the named selections. In one garden we were told that next year the two are to be planted in combination, the orange in the centre and the rather dwarfer blue round it.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Cypripedium Calceolus.—In a letter from me which you inserted in your issue of August 14 upon *Cypripedium Calceolus*, there is an omission in the middle of line 16, page 399 (no doubt my fault). After "adjacent shrubs" and before "Below the whole" there should have been "Beneath this (the leaf-soil) were 4 inches of rough river sand."—W. H. ST. QUINTIN.

Rambling Rose Sander's White.—This is a delightful Rose, and one of the best of the small-flowered white varieties. At Castlemilk, the fine garden of Sir Robert W. Buchanan Jardine, Bart., it is doing splendidly, and is much admired because of its free flowering and the beauty of the small white flowers. It has been sent out by Messrs. Sander and Sons of St. Albans, and that they think highly of it is evidenced by the name.—ESS.

A Lavender Harvest.—I am enclosing a photograph of our Lavender harvest, which may interest some of your readers. It is not often so much of it is grown in a private garden. It flourishes exceedingly with us, was cut on July 14, and brought down to the granary on a large farm cart. It was there spread out to dry, and is now in process of being shredded from the stems.—M. B. MIREHOUSE, *The Hall, Angle, Pembroke.*

Chrysanthemum maximum Caledonia. This handsome Marguerite is larger than King Edward, but is not so large as to be clumsy, while it is made more graceful by the laciniation of the ray petals. It is a good grower, flowers freely, and is pure white. It was raised by Mr. William Angus of Penicuik, and has done very well in my garden since its introduction a few years ago. We have too many varieties, but *Caledonia* deserves a place, I think, in the number chosen for retention when making a reduction of one's plants.—S. A.

A Gentian Note.—It seems most remarkable how *Gentiana acaulis* succeeds in some places while in others it is an absolute failure. I have tried it in different positions, but have not so far succeeded in growing it satisfactorily, so it is hard to say when a flower will be seen. Yet it may interest some to know that *G. verna* flowers with me—is in flower now. Is not this usually considered the more difficult of the two, thus making their vagaries the more pronounced? *G. verna* is planted in sandy soil in full sun. Incidentally, a friend of mine in the Midlands, who succeeds admirably with *G. acaulis*, told me his secret was to see that it had plenty of moisture during February and March. The conditions reported by "Enthusiast" on page 397 of a successful cultivator would appear to be the very opposite of those of my friend.—C. TURNER.

The Toad in the Garden.—Since writing my note on this subject I have had some further experience with my own special toad. On Wednesday afternoon I was in the vinery and saw a toad that greatly resembled the one I had taken from the structure a week or two ago. Once more the

toad was taken to a hedge bank across the garden and a corner of a field about 300 feet from the door of the vinery. About an hour afterwards, while watering some young Strawberry plants, I was surprised to meet the toad on his way back to the vinery. I pointed him out to my wife, and we watched, without in any way interfering with the toad. He walked along the path, turned off at right angles, and went straight to the vinery door. I opened the latter and he went in. I think this time he shall stay and enjoy the haunts he evidently favours and takes so much trouble to gain.—GEORGE GARNER.

Linaria aparinoides splendens and Annuals in General.—There are some lovely species and varieties among the Toadflaxes. *Linaria alpina* is an ornament to any rockery, annuals



A LAVENDER HARVEST IN A READER'S GARDEN AT PEMBROKE.

barred, notwithstanding. So is the one we have seen grown under the above long name for the herbaceous border, annuals barred, notwithstanding. Why on earth, when Nature mixes up annuals, biennials and perennials, should man be so chary about doing it? St. Paul's dictum about the different parts of the human body, saying they do not want each other, comes in here. Why are perennials so stand-offish when they are taken a little notice of? This long-named Toadflax is a medley of all manner of colours, blue and scarlet being absentees. It grows from 1 foot to 18 inches in height, it is very easily raised from seed, and when it has done its "bit" it can be rooted up and its "place be no more found," for a skilful manipulator will so arrange matters that the growth of a neighbour will hide it.—JOSEPH JACOB.

Olearia Haastii.—After a considerable test of the hardiness of the *Olearias*, I find that *O. Haastii* and *O. stellulata*, with *O. nummularifolia*, are the hardiest with me. All of them, however, were cut to the ground about two winters ago, but both *O. Haastii* and *O. stellulata* broke away from the base, while *O. ilicifolia* and several others were killed outright. *O. Haastii* is a most valuable plant. In spring and summer its glossy leaves make a pretty bush, and in late July and early August it gives a wealth of flowers, borne in such profusion in August that a good plant may be seen so covered with flowers that hardly a leaf is visible because of the multitude of creamy white blooms. This Daisy Bush is a plant of real worth, easily raised by means of cuttings, and plentiful in nurseries, though not so common in the villa and cottage garden as it ought to be, well known though it is to gardeners. As a shrub for the many it takes a high place.—S. ARNOTT.

AUGUST, 9 P.M.

Indigo islets of beautiful form
Float upon sea green and peach-tinted seas;
Black stands our group of tall, towering Elms,
O'er which we watch lovely Venus arise.

Suddenly near us the young owls float by
Restlessly calling as darkness enthralls;
Lustrous the heavens are spangled on high;
Swift through their mazes a leonid falls.

Lilies, entangled in pale Passion Flower,
Mingle their sweets with the Jasmine above;
Purest of pleasures, at night-time to roam,
Led by white blossoms, in garden we love.
M. C. S.

Erica cinerea coccinea.—There are several good varieties of the well-known British Heath, *Erica cinerea*, but anyone who has seen *E. c. coccinea* must admit that it is an easy first of the species, with its profusion of flowers of what I might term "fiery purple." These dwarf Heaths, to see them to full advantage, should be planted in good-sized clumps, as I saw this excellent variety in the rock garden at the Royal Botanic Garden, Edinburgh.

Ferula communis.—This noble herbaceous plant, equally suitable for the wild garden, the back of the wide herbaceous border, or as a specimen on the lawn, is not so well known as it deserves to be. Attaining a height of about ten feet and flowering in June or July, it will be seen that it is a rapid grower, and consequently requires liberal treatment. Its finely cut foliage alone entitles it to a place in any garden, but its great golden umbels towering aloft lift it quite out of the ordinary level, both figuratively and literally. Like the whole of the species, it is indigenous to the Mediterranean region, and proves quite hardy even in Scotland. *F. tingitana*, the Algiers *Ferula*, although not quite so striking as the common species, is more refined-looking. Nicholson suggests that the generic name of these Giant Fennels may have been derived from "ferio," to strike, the Orientals sometimes using the stout stems as rods.—CALEDONIA.

Loganberries and Raspberries in the Autumn. "H," page 402, issue August 14, gives a valuable reminder to cultivators of these plants as to what they should do to them now. In this district there are many plantations altogether overcrowded, and the plants deteriorate every year instead of maintaining a normal strength, as they undoubtedly would do if given correct treatment. Loganberries do remarkably well when planted and trained in a sunny position and treated as advised by "H." A cultivator assured me recently that in his case they were more remunerative than Raspberries.—AVON.

Eucalyptus in Flower in Norfolk.—As I write this I have before me some sprays of *Eucalyptus globulus* profusely covered with their quaint flowers. These were grown in the garden of Herbert Day, Esq., Newmarket Road, Norwich. Mr. W. Coan, the gardener, tells me he planted the tree about ten years ago, when it was one year old from seed. There are several good specimens about the grounds, but this one seems to have done the best, and has reached 20 feet high. No protection is given them in winter. The fact of it flowering has created quite a keen local interest. I was wondering if such an event had been chronicled before, north of the Thames at least.—AYTCH PEA.

Shirley Poppies as Cut Flowers.—I was interested to see the note on this subject on the front page of a recent issue of THE GARDEN. I am sure many readers will welcome a recipe for making these lovely flowers last in water. There are several other ways of making them last, which I give in case they may be of interest, but the duration of the flowers is in every case not so long, one or two days being the maximum. The first method is to cut when nearly full blown and immediately seal the end of the stem by putting it into a gas flame for a minute or two. The second method is similar. Dip the ends into boiling water to seal them. The third method, which I have heard is also very good, is to roll the ends of the stems in fine dust as soon as they start to exude. This last method is said to give the longest duration. In this garden we have many fresh Poppies out in bloom every day, and each morning it is necessary to go round with a knife and cut off a number of seed-vessels. My own opinion is that this is one of the prettiest and most charming of all our hardy annuals.—E. T. ELLIS, *Weetwood, Ecclesall, Sheffield.*

Border Carnations : Autumn Planting versus Spring Planting.—I suppose each of these systems has its advocates, and while I have no theory on the subject, I may be allowed to record a very recent experience. Until the present season I had invariably practised spring planting, with fairly successful results, my method being that of potting up the rooted layers in autumn and wintering them in a shallow cold frame with the lights well tilted up back and front continuously. During the winter of 1913-14, however, we had a week or so of frosty weather, and a mat was thrown over the Carnations. On removing the mat I was shocked to find that the mice had decapitated about 75 per cent. of the entire stock. This determined me to give autumn planting a trial. Being unable to clear the quarter intended for them of summer flowers till late in September, we were unable to plant the layers till the first week in October, yet, notwithstanding the late date of planting, we have stronger and more healthy "grass" and finer flowers than ever we had before. About

5 per cent. of the plants failed to grow. I should perhaps add that our soil is naturally a heavy yellow clay, but the top soil has been improved to a considerable depth by the addition of sand, old potting soil, and other material.—CHARLES COMFORT, *Broomfield Gardens, Midlothian.*

The New Rose Hadley.—The recent report of the Ontario Rose Society's Show made reference to the new American variety Hadley, and having flowered it outdoors this season, a note regarding it may be of interest. Hadley is the outcome of a well-known Rose forcer's efforts to produce an ideal red forcing Rose. It is not put forward as filling the bill, but it is, nevertheless, a very fine variety. Its merits as a forcer have already been proved, but it is chiefly as a garden Rose that it will win or fail in this country. My own plants were not received until May, after a full month in the packing case, due to the great congestion at the Liverpool Docks. Being very small and on their own roots, the plants were nursed in a frame until the end of June. Since they were planted out they have made wonderfully good growth, and have produced several small but charming flowers. The colour is wonderfully rich, reminding one of some of the famous old Hybrid Perpetuals, and I venture to hazard that when available as budded stock, Hadley will make its way into popular favour. I may mention also that Hoosier Beauty, the American novelty which gained a National Rose Society's gold medal last spring, promises well as an outdoor variety. It is a wonderful colour, and the perfume is delightful. Several other varieties from the United States of America under test will, I think, in the future attract public attention, judging by their behaviour after the severe treatment they had been subjected to.—T. A. W.

New Potatoes in Winter : A Letter from the Front.—I have read with great interest your article in THE GARDEN for July 24 re Potatoes for autumn. A very favourite way of mine at home used to be as follows: When lifting the early crops, such as Early Regent and Sutton's Ashleaf, I picked out seed size and good stores; then what are often called pig Potatoes, which included small and bad-shaped or green ones, were placed on a bed of leaf-mould in some warm corner of the estate or paddock, and covered with dry leaves and bottle straw; or I have even chopped Oat straw till all were covered about a foot deep. I allowed them to draw their own moisture from the ground they were on. When frost set in, litter was added to keep it out or too much wet. This work I always had finished by the end of August. I omitted to say the tubers were laid about two inches apart on the bed, and, providing one had a nice breadth of ground, quite a decent supply of new Potatoes could be had for Christmas and the New Year. When commencing to "lift" the crop (which is a very interesting game), start at one corner of the bed and do the lifting and picking with the hands. I have had dishes of very sweet little Potatoes well into March, which are far more creditable than the so-called sand Potatoes. While doing my "bit" out here, I have to thank my friend, R. T. Barratt, Esq., Chapel-en-le-Frith, for supplying the paper, as I am a regular reader of THE GARDEN when at home. Plenty of garden-lovers would be pleased of surplus copies of the paper if people at home only realised how short we are of something interesting.—2369 PRIVATE H. W. BENNETT, *A Company, 6th Sherwood Foresters, British Expeditionary Force.*

THE ECONOMY OF ROCK-WORK.

IN the excellent article under this title in your issue of August 7, "Kurstcot" alludes but slightly to the economy of a rock garden, and does not say where he thinks it comes in. I do not agree that you get a greater result in plant cultivation in a given space. Rock plants are mostly small, and therefore you can get a greater number of different kinds into a small space; but you can get a much greater number of similar-sized plants into the same space on a border not encumbered with pieces of rock, and therefore a much finer display of colour.

If there really is economy in rockwork, it surely lies in the labour, the saving of digging and feeding a border, the propagation and planting out of young plants, necessary even in the case of perennials, or the mowing of lawns or verges. A good deal of labour is, however, required in rockwork if it is not to become a wilderness, with all the best things smothered; but rock labour can be done at almost any time, and therefore the amateur can, and generally does, work far more in it himself.

I am a very keen amateur gardener myself, and keener on rockwork than on the rest, though not to the exclusion of proper border effects, &c. If I, therefore, criticise some of "Kurstcot's" further remarks, I reflect my own experience and my own fancy, which, naturally, must differ from that of other people at times. But I know I can claim some success to justify myself.

First, then, I do not agree that rockery steps should be made simply with soil. Steps and little paths go together, and should, in my opinion, be made of something, preferably slabs of rock, in which no plants can grow. I refer to the centre, of course, whatever happens at the sides, and I say that centre ought to average not less than 2 feet, even in a small rockery, and stiff-growing plants ought to be put at the sides, not trailers or spreading plants, because it goes to one's heart to put one's foot on to little favourites, and still more so when other people do it whom one is showing round. If there is good soil below, there is sure to be a large crop of seedlings or runners coming up between the stones very quickly. I am just now trying to get rid of a maze of Campanulas, Gentians, Primulas, &c., in just such a place, so I speak feelingly.

The next point is perhaps more a matter of opinion, and that is the remark that there will be 250 varieties of plants in a space 20 feet square, coupled with the further remark that a genus should be represented by all suitable species. The allusion to the library can surely not hold here. In the latter case, the great point is the quality of the matter in the books which may appeal to the individual brain, whereas the garden can only appeal through the eye. Or if the eye has to be struck by the method of a library, the desired effect would not be attained by collecting all the different works of some favourite author in all sorts of editions and different coloured bindings, and then arranging them methodically side by side on the same shelf! A sadly restless effect would be the result, which is exactly what happens in a garden when too many different kinds of plants are put into too small a space. Besides, there is the difficulty of very different

requirements of the different species, no doubt covered by the word "suitable," which, however, will probably be overlooked by most collecting amateurs. I am constantly doing it myself. Finally, it is surely better for amateurs to get to know how to treat a few species successfully and with the proper gardening effect of peaceful-

too sharp to retain as borders. Such are best terraced, and undoubtedly rocks are vastly better than terrace walls. These can be made to look very like natural rock cropping out of the surface; but the faces *must* have enough stone to look like rock, which can still be made to hold a crowd of small things. The tops of the terraces require

A CHARMING SUCCULENT-LEAVED PLANT.

(MESEMBRYANTHEMUM CRASSULINUM.)

ALTHOUGH several members of the Figwort family may be used with good effect on the rock garden, none is more suitable than *Mesembryanthemum crassulinum*. It is of neat, compact habit, forming quite a thick cushion of succulent foliage, above which are borne its pure white flowers, an inch in diameter, during June and July, and will often continue until late autumn, making it a valuable plant for the rockery. It is a native of South Africa, and a plant seldom seen. The illustration is of a plant growing on the rock garden in the Botanic Garden, Cambridge, where it has grown now for several years without any protection. It appears to be quite hardy and is one of the best of the genus. F. G. PRESTON.

THE PICTORIAL USE OF BEDDING PLANTS.

SOME thirty years ago, what we commonly call bedding plants, meaning tender things put out for summer use, were almost in exclusive use in our gardens, usurping the place of the good hardy plants in places of small and moderate size, and even invading the little roadside gardens of labourers' cottages. Then came the much-needed revolution and the restoration to favour of the fine hardy plants that we have now learnt to know and use so well. But in some cases the influence of the change has done injustice to some of the best garden plants of the late summer. It was not the fault of the scarlet Geranium, yellow Calceolaria and blue Lobelia, to name three showy things that were formerly forced upon our view in a wearisome repetition that ended by becoming detestable, especially when displayed in the form of a target-like circular bed, or, still worse, a senselessly waved ribbon border. The plants themselves, put to better use, are still among the best of our summer ornaments, and capable of giving delight in the place of something nearly approaching disgust. The whole difference consists in the matter of arrangement and of good grouping for colour effect. Some notes on a recent experimental planting, with good hope of further bettering within the next year or two, may be of use to some of those whose gardens are of such a calibre that, without undue strain, they can house and propagate the needful plants. These will be—to name some of the more important—Dahlias, Cannas, Gladioli, Geraniums, Salvias, Begonias, Verbenas, Calceolarias and Heliotrope, with Pentstemons, Snapdragons and Lobelia cardinalis, and half-hardy annuals, of these the most useful being the various kinds and colours of African Marigolds and some of the dwarf French Marigolds, China Asters in a very restricted range of colouring, and Ageratum.

Though all these fine things are in place in the formal parterre, yet their more enjoyable use is in free groups in wide flower-borders. The purpose of such a border or garden space is to have a brilliant display from the middle of July to the end of September. So long as this is attained, it does not matter how it is done; that is a question of ways and means that will largely be answered by the skill, taste and ingenuity of either the gardener or the owner, or, best of



A WHITE-FLOWERED FIGWORT, MESEMBRYANTHEMUM CRASSULINUM, IN THE CAMBRIDGE BOTANIC GARDEN.

ness than to have a big collection, largely of labels recording failures.

I maintain there should be comparatively broad stretches of well-blended colours to be pleasing. Then an occasional gap in which something new has been tried, singly at first, and failed does not matter. If it is a success, it should be propagated and made to replace some less satisfactory section of the rock garden. I know, of course, that, even this way, a large number of species can be put into 20 square feet, but they would not come to more than forty or fifty, with perhaps another thirty thrown in for single specimens, either on trial or as landmarks in special places.

Finally, at the risk of making this article too long, I cannot agree with the remark that the essential part of a garden is plants—at least, not in all rock gardens. Such dogmas have misled many a beginner, and valuable time and ground has been wasted, which in a rock garden it is heartbreaking work to correct.

Rock gardens might be classified into three groups, two of them necessary to get the best effect out of a given piece of land, and one of them unnecessary, because it is only the wish to have a rock garden in a certain spot where any other scheme would do perfectly well. This I dismiss, not in the least from lack of sympathy, but because it is beside the question.

Of the two necessary ones, the first is evidently the one which has led "Kurstcot" to build his. I refer to sharp slopes, too difficult to mow and

no stones, or only a few, according as to whether the owner think the faces enough for small rock plants and has larger bushy stuff on the flats, or wants nothing but small alpines. But the faces *must* appear solid rock, with fissures and broken bits, or the effect will be a rockery and not a rock garden.

The second necessary rock garden is brought about by your being on the rock and having, perhaps, an ugly piece of quarried face to negotiate. People say, "How delightful to have the rock garden ready formed!" Let them try. Nothing will come of it till you have built up a great deal. But that rock face is a feature, and you must preserve a good deal of it. So a lot of rock must show. It can be covered by hanging Aubrietias, Lithospermum, Genista sagittata, &c.; but much rock must always show, and will look much better than it would do if you had made a pudding of it and started ever so far from the base, building up in an even slope so as not to show much rock.

I have all these things to contend with in my garden, but it is the pleasure of my spare time to do it. It is, however, hard work, and especially hard thinking, so I hope "Kurstcot" will forgive my criticism. I hope some day to write again and tell how I have got over some great troubles which my rock has caused me (it is on the surface in many places, and only 12 inches to 18 inches below in others); but I am always glad and never ashamed to show anyone the result.

Alderley Edge.

C. H. S.

all, by the two in frequent council. A certain number of the plants should be in pots for plunging, such as Fuchsias, Bouvardias, Campanula pyramidalis, Plumbago capensis, Daturas, Hydrangeas and the three indispensable Lilies, namely, longiflorum, speciosum and auratum, with an amply overlapping quantity in reserve for any shifts that may be desirable. Of *Lilium speciosum*, one of the most beautiful kinds, and one that is generally neglected, is the variety *punctatum*, whose general effect is a pale pink. This neglect is probably owing to the prominent pushing in trade catalogues of the stronger-coloured kinds; but the pure white and this delicate pink are not only more charming in themselves, but are also more easy to use in association with the colours of other plants. As a suggestion for the use of the late summer flowers, it may be assumed that some wide borders have to be treated, such as those of the present experiment. In this case the further portions are a little raised, and there is a rather bold permanent planting of *Yuccas* of the three most useful kinds, namely, *gloriosa*, *recurva* and *filamentosa*, the first two being of large size; also of the large *Euphorbia Wulfenii*. These masses of grey foliage are an excellent groundwork for white Snapdragons and nearly white Pentstemons, also for the pinks and purples of pink *Verbena* and Ivy Geranium *Mme. Crousse* and *Heliotrope*. There are also drifts of pale foliage of the small variegated sweet Geranium and of a capital old garden plant that is much neglected, the variegated form of *Mentha rotundifolia*; it is of extreme value, with flowers of white, pale yellow, pale pink or purple colourings, quite hardy but all the better for being used as a summer bedding plant from autumn-struck cuttings.

The flowers are arranged in bold drifts, running in the direction of a rather acute diagonal with the line of the path. This has an advantage over any kind of block-shaped grouping, giving a greater sense of freedom in the use of the plants and larger effects of colour mass when seen from either end. The strongest colour comes about midway in the length, the plants here being the fine dark-leaved *Canna Adrien Rubini* with crimson-leaved *Amarantus*, interdrifted with scarlet *Lobelia* and *Gladiolus brenchleyensis*. At the front edge, for some 2 feet in width, and running back here and there for a yard or so, always in the same direction as the diagonals, are the splendid scarlet Geraniums *Paul Crampel* and *Raspail Improved*—*Paul Crampel* slightly the better of the two, for though it is equally brilliant, it has a softer quality and is less violent. Geraniums of softer scarlet follow—a fine one is *Mrs. Bartleman*; this eases down the colour to the salmon shade of *Geranium King of Denmark*. Here are *Cannas* of moderate scarlet and soft flame colour, and the fine *Gladiolus William Faulkner*, nearly matching *King of Denmark*. Red Pentstemons and Snapdragons are here intergrouped. Following are the lighter salmon Geraniums *Wilhelmina* and *Countess of Osterwitz*, softening down to the still paler *Mme. Lemoine*,

a fine old Geranium with handsomely zoned leaf, and the quite pale, almost blush white *Lady Harwich* and *Bridal Bouquet*. All these Geraniums form a thick bordering, and here and there run up between the drifts of taller plants. But among the pale Geraniums comes again the variegated *Mint*, associating charmingly both with them and with the *Hydrangeas* plunged in the border further back, and the bold groups of the lovely pale *Gladioli La Parisienne*, *Leo Errera* and some with yellow grounds. Here, also, are yellow *Cannas* with bright green foliage, white Lilies (*speciosum* following *longiflorum*), and, at the back, variegated *Maize* and *Lilium auratum*. Between some of the drifts of scarlet flowers is a considerable planting of a most useful plant, a garden variety of the rather large, native *Sedum Telephium*. Its greyish mass is first useful as a foil to the strong colours, and, as the season advances, the widespread heads of bloom turn to a quiet chocolate red that harmonises delightfully with the brilliant colouring near. The use of such between-plants is of great value—a value that becomes more and more apparent every succeeding year that it is practised. It is impossible, within the limits of an article of reasonable length, to describe all the desirable combinations of the summer flowers; but these notes may give some useful suggestions for treatment which will become all the more interesting when worked out by those who are in sympathy with such ways of gardening. Suffice it to repeat that, though for gardens in general hardy perennial

A BEAUTIFUL GLOBE DAISY.

(*GLOBULARIA INCANESCENTS*.)

WITH one exception (the shrubby *G. Alypum*) all the Globe Daisies are dwarf hardy perennials of an evergreen character. The flowers are borne in round heads, from which character the common name is derived, and they are usually blue or white in colour. There are about a dozen kinds found in Europe, mostly in the Mediterranean region, one of the best known and widely spread species being *G. cordifolia*, forming a mat of neat foliage and producing small heads of blue flowers on stalks 2 inches or 3 inches long. The smallest is *G. nana* from the Pyrenees, a choice little plant, but sometimes difficult to keep.

G. incanescens, the most charming plant in the genus, comes from the Pennine Alps, and forms cushions of dark green foliage, the leaves of which are oval and less than half an inch across. As may be seen in the illustration, the flowers, which are pale blue and half an inch in diameter, are produced freely and last for a long time in perfection. It is a first-rate rock plant, either for the moraine or a well-drained pocket. It may be increased by division in the early autumn or spring. W. I.

ANNUAL FLOWERS FOR AUTUMN SOWING.

By far too many keen lovers of hardy flowers those kinds of annual duration are looked upon as



THE CHARMING LITTLE GLOBE DAISY, *GLOBULARIA INCANESCENTS*.

plants are by far the most desirable, yet, when the conditions are favourable and the resources of the garden are not overstrained, pictures of flower beauty of a more brilliant and, within a season, more durable nature can be made with the fine plants that are suited for putting out in summer.

G. JEKYLL, in *Country Life*.

plants only suitable for sowing during the genial days of spring. It is true that not a few of our annuals, including many classed by seedsmen as "hardy," cannot be successfully reared if the seeds are sown at any other time; but, on the other hand, there are a number of kinds that will provide us with glorious drifts of colour from

May onwards, providing the seeds are sown during the next few weeks.

The success of such, however, depends very largely upon circumstances, much more so, indeed, than cultural skill, though necessarily this is to some extent brought into play. Soil, locality, altitude and the weather experienced during the trying days of winter all act their part in determining the success or otherwise of autumn-sown annuals. Thus it would be folly to commit seeds of such plants to soil that is naturally retentive of moisture, and which during practically the whole of the winter is in a state of saturation. In such soil many perennial plants succumb, and the small annuals are bound to "go under."

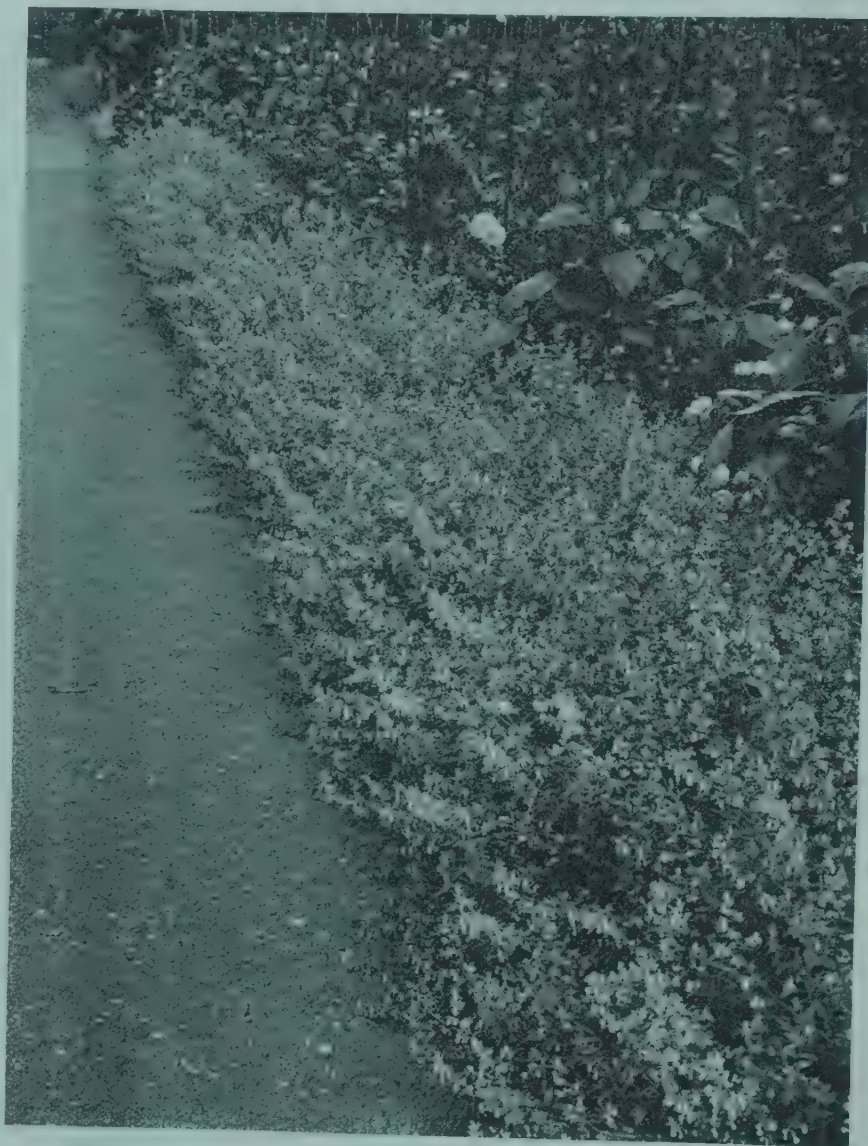
Localities that are naturally damp, such as the West Coast of England and Scotland, are also bad for the majority of annuals during the winter months, and the same applies with equal force to low-lying districts that are frequently visited by cold, dank fogs. From the foregoing negatives it will be seen that to grow autumn-sown annuals successfully, well-drained and naturally dry soil is necessary, together with a reasonably dry atmosphere and an open position.

In many chalky and sandy soils, which are comparatively dry in winter and almost devoid of moisture in summer, it is well-nigh impossible to secure annual flowers from spring sowings, and here it is that the advantage of autumn sowing comes in. In addition we get a floral display some weeks in advance of that obtained from spring-sown plants, and at a time when a hiatus occurs between the flowering of the spring bulbs and the hardy herbaceous plants.

In many seedrooms there will be partly filled packets of annual seeds that were left over from the spring sowing, and such of these as may be suitable ought to be consigned to Mother Earth during the next few weeks, early September being a good time for most localities. Some of our leading seedsmen make a speciality of flower seeds for autumn sowing, so that no great difficulty need be encountered in procuring a supply. When sowing these flowers in spring, it is of the greatest importance to scatter the seeds thinly, but it is even more essential in the case of those sown at the present time. Of equal importance is a thin covering of soil. The seeds of most annual flowers are small, and although they may in the spring months, when growth is very active, force their way through 2 inches of soil, they are not likely to do so now. Just sufficient soil to keep the seeds from blowing away is enough, and lest anyone may doubt this I would remind them of Nature's way; self-sown seeds have no covering, except a little dust or other refuse that may be washed or blown on to them. Sweet Peas, with their larger seeds, are, however, an exception to this shallow sowing, although even these will do with an inch-thick covering of soil. At the outset reference was made to the necessity

for choosing suitable kinds of annuals for autumn sowing, and I will name some that may be relied upon to give a good account of themselves in those gardens where the conditions, as before enumerated, are favourable. There are many other kinds that would probably do well in certain localities, and it is well worth while proceeding tentatively with any that are known to withstand a moderate amount of frost and damp. The Sweet Pea has already been mentioned, and so well does this do when sown in autumn that most growers prefer this season to the spring. *Nemophila insignis*, *Cornflowers*, *Larkspurs*, *Candytuft*, *Silene pendula* and its double form, *Bartonia aurea*, *Poppies*, *Clarkias*, *Godetias*, *Virginian*

summer months, when it puts forth its profusion of lavender blue blossoms, it is particularly pleasing. Grown as an edging to a pathway, as shown in the illustration, it makes a charming garden feature, and its beauty is enhanced if the path itself is of genuine York paving stone. In recent years Mr. G. Dillistone has made excellent use of this *Nepeta* in many gardens that his firm has designed and laid out, mixing it freely with pink China Roses. Where a more temporary association of pink is desired, one would suggest dwarf pink Mallows, the colour of which harmonises beautifully with the foliage and flowers of the *Nepeta*. The latter is quite easy to grow, and succeeds well in sandy or loamy soil, propagation being readily effected by division during the autumn or early spring.



NEPETA MUSSINII AS A PATHWAY EDGING. THE FOLIAGE IS GREY AND THE FLOWERS BLUE.

NEPETA MUSSINII AS A PATHWAY EDGING.

It would be difficult to find a more generally useful plant than that shown in the accompanying illustration. This is *Nepeta Mussinii*, a very old inhabitant of our gardens, and one that deserves to be more widely grown than it is at present. At all seasons of the year its neat tufts of silvery grey foliage are attractive, while during the

preferable.) These and *Schizanthuses* make a wonderful display together.

***Godetias.**—Another extremely useful and showy family.

Larkspurs.—The taller varieties give the best results. A bold group of rich blue is very telling.

***Nasturtiums.**—These give a mass of flowers if not grown in too rich a soil. The small-foliaged ones should be chosen and those having decided tones of colour.

Nicotianas.—Sutton's Miniature White is a gem for pot culture. *Affinis* and *Sanderæ* are also useful.

***Nemesias.**—Wonderfully free and showy. Effective for groundwork or edging.

ANNUAL FLOWERS FOR THE GREENHOUSE.

"ARE the merits of some annuals sufficiently recognised?" is a question of some importance when, combined with the production of a wealth of bloom, strict economy has to be practised, as in many gardens to-day, owing to the exceptional circumstances employers of labour have to face. The usefulness of the *Schizanthus* needs no comment, but some other annuals almost equally desirable as pot plants may justly claim more attention. The following varieties can be safely recommended, and where it is only convenient to grow a few, those marked with an asterisk should receive first consideration:

Alonsoas.—Those with orange and scarlet shades of colour are best.

***Antirrhinums.**—The Intermediate strain is most suitable. Some pale shades are apt to be a little "washy." The new pink *Nelrose* is very nice.

Asters.—Useful for the autumn. Grow in the reserve garden and transfer to flowering pots.

Candytuft.—The tall ones make excellent edging plants for groups.

***Clarkias.**—Impossible to speak too highly of. (*Elegans* variety

Phlox Drummondii.—I can only speak of one as proved, and that is Sutton's Purity.

***Salpiglossis.**—Owing to the many brilliant shades, this is probably one of the coming plants for pots.

Stocks.—The lovely scent emitted from a few flowering plants is of itself sufficient recommendation.

Venidium calandulaceum.—A plant which does well in pots. It is bright yellow with an orange tone, and perhaps somewhat resembles Gazania. Very free flowering.

dampness and fog must be guarded against, the latter especially so.

From the seedling stage to the flowering one nearly all annuals appreciate a light and open rooting medium and only moderately firm potting. If there is added to the compost for the final potting a little soot, wood-ash and bone-meal, the results therefrom will be beneficial. Unless for some definite purpose, large pots should be avoided, for some wonderful plants may be grown in 5-inch and 6-inch pots. Alonsoas, Phlox Purity and Nemesis may well be grown in 4½-inch pots.

though it may be a trifle untidy, for this is much to be preferred to violating Nature altogether.

Serlby Hall Gardens, Bawtry. H. TURNER.

ROSE ALBERIC BARBIER.

I do not suppose that the famous French raiser, M. Barbier, when he secured this charming Rambler Rose, imagined for one moment that it was destined to become one of the greatest favourites of Rose-lovers in this country. Although sent out so comparatively recently as 1900, it



THE EARLY-FLOWERING WICHURAIANA ROSE ALBERIC BARBIER ON POSTS AND CHAINS.

Cultural Hints.—For a spring display a pinch of seed should be sown in August, September and October in a cold frame, using a light compost over some well-drained pots or pans. The seedlings may remain in the cold frame on a bed of ashes close to the glass after being pricked off, until atmospheric conditions render it necessary to remove them to safer and drier quarters. Only a few are so fortunate as to be able to devote an entire structure to annuals during the winter, so shelves in Carnation and fruit houses must be made use of, as a rule. Coddling of the plants is not at all necessary, but at the same time

Stocks, to look well, should have three allowed to a 4½-inch pot, and five are not too many for a 6-inch pot. This does not apply to Brompton Stocks. It is advisable to pinch Clarkias once or twice during the early stages of growth, as then a better habit is obtained. Should specimen plants be required, grow three or five together, finally using for them 7-inch and 8-inch pots respectively. Stimulants are not necessary for annuals until the flowering pot is well filled with roots. When staking, use the least possible number of stakes, and try to allow each plant to retain something of its natural habit, even

may now be found in eight gardens out of ten where any serious attempt at Rose-growing is made, a fact that speaks in eloquent terms for the variety. Although a wichuraiana hybrid, it is among those that bloom early, its long, graceful shoots and glossy green foliage being surmounted towards the end of June by its beautiful, creamy yellow blooms, which are produced in great profusion. For clothing a rough pergola or forming a screen it is excellent, as it is a very rapid grower and quickly fulfils the desired object. Unfortunately, it flowers but once during the year, but this is, after all, a little fault.

S. S.

SOME HINTS ON PENTSTEMONS.

IN but few instances during the last few years has a race of plants become as popular as the above. This is due to the species being quite outclassed for decorative effect by the introduction of numerous florist or garden varieties. The majority of these are now recognised as being in the front rank of bedding plants, while for planting in the mixed flower border, or in the foreground of the shrubbery, few subjects are more useful. When in flower they are all remarkably handsome, their massive spikes being freely produced in the richest and most delicate hues. For cutting they are invaluable, and worthy of planting in quantity where effect is not the chief consideration.

The Species.—Although not so frequently met with, the species are very beautiful, but they are rather more fastidious in their requirements than

those that can justly claim attention is Southgate Gem. In this Pentstemon we have probably the finest yet sent out. When not overcrowded and in a good position it presents a striking picture with its light, graceful flower-spikes of brilliant scarlet, the throat being almost white. It rarely extends over 3 feet in height, and its habit of growth bears a near approach to perfection. A fitting companion to it is Pink Bedder, the colour of which is a delightful shade of salmon pink. White Bedder is of dwarfer habit than the foregoing, but it is very compact, and fine for massing. In Newbury Gem we have a very hardy variety of neat branching habit, with freedom of growth and flowering, and a lengthy season of beauty. In colour it is a brilliant glowing scarlet, and whether intended to be grown solely for cutting or for bedding purposes, it seldom fails to give the desired satisfaction. White and Pink Newbury Gem possess similar good qualities.

Varieties more robust and bearing somewhat larger flowers are very conspicuous when planted

further shift into pots two sizes larger when the roots show signs of wanting more space. When the weather is favourable in April they are best planted out about twelve inches apart in soil that has been dug in winter, and liberally enriched with well-rotted manure.

F. J. TOWNEND.

The Gardens, Brentwood, Moorgate, Rotherham.

NEW AND RARE PLANTS.

FIRST-CLASS CERTIFICATES.

Cattleya hardyana variety *His Majesty*.—

A remarkably handsome variety, rich in colour and of the largest size. The rosy purple sepals and petals are very telling in tone, the rich crimson purple lip conspicuously marked by golden-coloured blotches at the sides. From Messrs. Low and Co., Jarvisbrook, Sussex.

Odontoglossum President Poincare.—The flowers of this striking novelty are characterised by rare substance, with, in addition, well-imbricated sepals, which adds weight to its

other good qualities. Save for the white-tipped sepals and petals and a large white lip, the flower is wholly coloured dark heliotrope, which renders it very distinct. The petals, too, are distinctly toothed at the margin.

Odontonia Charlesworthii

Fowler's Variety (*Odontoglossum*

Uro-Skinneri × *Miltonia vexillaria*).

This distinct bi-generic hybrid leans largely to the last-named genus in form, a modified *Miltonia*, indeed, coloured rosy purple and copiously freckled with white.

AWARDS OF MERIT.

Cattleya drapsiana vinosa (C.

dowiana aurea × C. *Mrs. Pitt*).—Only the plant remained of this, the inflorescence having been removed.

Cattleya Sybil variety *rotundobellum* (C. *iridescens* × C. *aurea*).—

The sepals and petals are buff-coloured with salmon suffusion, lip crimson purple, and golden-coloured throat. These four excellent novelties were shown by J. Gurney Fowler, Esq., Pembury, Kent.

Laelio-Cattleya Golden Queen.—

The sepals and petals are of apricot or deep buff tone, the heavily fringed, undulated lip of rich purple and freely lined with gold at the throat. From Messrs. Flory and Black, Slough.

Poterium obtusatum.—A striking "Burnet" novelty from Japan, which will be welcome at this season for the warmth of its long, rosy red inflorescences. These are gracefully arching, columnar in outline, and quite distinct from any other of its tribe. Height, 2½ feet to 3 feet. A useful addition to hardy border plants. From Messrs. Barr and Sons, Covent Garden, W.C.

Dahlia Patrol (Collarette).—The outer florets are coloured ruby crimson, the inner ones nearly pure white. A shapely and distinct variety.

Dahlia Geraldine Edwards (Cactus).—A refined and distinct variety of delicate blush pink colour with long, narrow, almost thread-like florets. These were from Messrs. James Stredwick and Son, St. Leonards, Sussex.

The whole of the foregoing novelties were exhibited before the Royal Horticultural Society on August 17, when the awards were made.



THE MAGNIFICENT COLLECTION OF VEGETABLES SHOWN BY MR. E. BECKETT IN LONDON LAST WEEK. AWARDED A GOLD MEDAL AND A LINDLEY MEDAL FOR CULTURE.

the garden forms. In districts where the soil is heavy and retentive of moisture, they do not flourish well when treated strictly as perennials. In all but the most favoured localities a warm, sheltered position, such as at the foot of a south wall, must be provided for them. Usually the best results are obtained where the soil is naturally light or chalky and spring planting out is preferable even then.

One of the best species is *P. barbata*, growing about 2½ feet high and bearing spikes of bright red, tubular flowers over a lengthy period. A richly coloured form of this is *P. coccinea*. Of dwarfer habit is *P. glaber* and *P. Menziesii*, both producing violet or purple flowers with perfect freedom. *P. roseus* is a charming rose-flowered form of *P. glaber*. *P. Scouleri* is noteworthy for its long spikes of violet blue flowers, but it must be planted in a warm sunny position, where it will attain a height of 4 feet when in flower.

Garden Varieties.—Among the florist varieties the greatest difficulty is which not to grow, so numerous are the really good forms. One of

in bold groups or large beds. In *Crimson Gem* we have a most suitable variety for either purpose. When well grown it is perhaps the finest of its type, the massive pyramidal flower-spikes of crimson-scarlet, often 3 feet in length, being most effective in any position. Another handsome crimson is *King George V*. This Pentstemon, though not exactly a self colour, as the last named, is nevertheless very charming with the few white stripes in the throat.

Propagation.—The usual method of increasing the stock of these plants is by taking cuttings about the last week in September and inserting them in sandy soil in a cold frame. After watering them thoroughly, put on the lights and keep them close till rooted, taking care in the meantime to shade from bright sunshine. Throughout the winter endeavour to keep them sturdy by admitting all the fresh air possible; very little water will be needed until the turn of the year. Where very large specimens are required, it is a good plan to pot them up when rooted, and, if possible, give a

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Pot Fruit Trees.—This method of growing fruit under glass is becoming more popular every year. The selection of varieties is of the utmost importance, as some kinds are quite unsuitable for growing in pots. Peaches, Nectarines and Plums are the most useful and profitable to grow. Of Peaches, Peregrine, Dr. Hogg and Marchioness of Downshire are all suitable for pot culture. Of Nectarines, Cardinal, Early Rivers', Dryden, Pine-apple and Humboldt are thoroughly reliable. Plums may be represented by Early Transparent Gage, Jefferson Gage, Green Gage, Denniston's Superb Gage and Kirke's Blue. A cultural point which needs special mention at this time of year is the treatment of the trees after they have fruited. They require just as much care in regard to watering when they have fruited as they did while the fruits were maturing. Trees which are required for forcing must be repotted now, and every encouragement given them to mature their buds, or failure will be sure to ensue.

Plants Under Glass.

Perpetual - Flowering Carnations.—Plants growing outdoors must be placed under glass should the weather become cold and wet. A light, airy structure is necessary for their well-being during the dull winter months. Fumigate them occasionally to keep them free from aphids; and should there be evidence of rust, syringe them once a week with one of the specifics recommended for this purpose.

Caladiums.—As the foliage of these plants begins to show signs of exhaustion, water should be given less frequently than hitherto. The plants must now be gradually induced to rest.

Crotons.—Some of the plants which are becoming too large can be discarded. All growth suitable for cuttings may be made use of. Cuttings will root readily in the propagating-case, providing there is a sharp bottom-heat. The plants in the stove must now be well exposed to the sun, or their foliage will be deficient in colour.

Dracænas.—These are always useful where large quantities of plants are needed for house decoration. A batch of young plants should be propagated annually. The best method of propagation is by cutting up the stems of old plants and laying them in boxes of sand. Place the boxes in heat and keep the sand moist, when young shoots will soon be forthcoming.

Salvia splendens.—This useful plant will now be well rooted, and must be liberally supplied with stimulants. The flower-spikes will soon be developing, and care must be taken that they are free from aphids and red spider. Before bringing the plants indoors, lay them on their sides and syringe them with an insecticide.

The Flower Garden.

The Flower Border.—Those annuals which are required for flowering early next summer should be sown now in boxes and placed in a cold frame. Annuals flowering at the present time require regular attention to tying and the removal of dead flowers and foliage. In the event of a continued spell of drought, all flower borders must be watered at least once a week.

Climbing Plants.—Those growing against walls require regular attention to watering, as heavy rains often fail to reach the roots. A mulch of some moisture-retaining material will be of considerable benefit to plants growing on walls. Many climbing plants are often disfigured by attacks of red spider, but these can be prevented by syringing with an insecticide.

Polyanthuses.—These are among the most useful spring bedding plants we have. Give the young seedlings every encouragement to make strong plants before bedding-time arrives. The plants which were pricked into boxes should now be ready to plant in the open. After planting, sprinkle them every evening when the weather is dry and hot to promote a healthy growth.

The Hardy Fruit Garden.

Morello Cherries.—When the fruits have been cleared from the trees, all surplus growth may be removed. If this work is done now, there will be little pruning required during the winter. The advantage of pruning now is that the remaining growth will have a better chance to mature. It is a common mistake to leave too much growth in the trees; a distance of 6 inches is none too much between the shoots. After pruning, the foliage should be thoroughly washed with an insecticide.

The Fruit-Room.—This important structure requires a thorough cleaning annually, and, if not already cleaned, it should be done at once. The shelves and all woodwork must be well washed with soapy water, and the walls cleansed and limewashed. I have seen paper or straw used on the shelves on which to lay the fruit, but this is a mistake. So long as the shelves are perfectly clean, nothing is needed on which to lay the fruit.

The Kitchen Garden.

Leeks.—These may still be planted where ground is available. Bearing in mind that all vegetables will be of double their usual value during the coming winter and spring, there must be no vacant ground left anywhere. The Leek should be specially favoured in this respect, as it keeps so long in good condition.

Vegetable Marrows.—At no time do Marrows require so much attention to watering and feeding as the present, for there are usually many fruits maturing on the plants at this time of year. Liquid manure should be given frequently. Cut the fruits before they have grown too large, and remove all growth which is not wanted.

General Work.—Small sowings of Mustard and Cress may be made frequently in cold frames, or in a sheltered position outdoors. Radishes must also be sown frequently to keep up a regular supply of fresh roots. Celery must be watered with liquid manure, as also must Runner Beans and Peas. Exhausted crops should not be allowed to remain on the ground. A good fire will consume almost everything, and the ashes are always useful.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

The Flower Garden.

Lilium candidum.—Bulbs of this charming Lily are now on the market, and should be planted without delay, so that they may get well rooted and be allowed to develop their autumnal growth before winter arrives. This Lilium resents frequent disturbance at the root, but on some soils it quickly deteriorates, and it becomes necessary to replant. Some well-rotted manure and leaf-soil should be put in the soil first, but not in such a manner that the actual bulbs will come in contact with it. Planted in the herbaceous border, they brighten up the garden at a period when there is a gap between summer and autumn subjects. For cutting purposes they should be planted in different sites or aspects to get a longer season of flower.

Heliotropes.—If plants are required as standards, there must be no delay after this date in getting the cuttings put in, especially if tall plants are needed. Apart from this, it is safer to secure the cuttings now, as a very few degrees of frost kill the plants.

The Hardy Fruit Garden.

Gathering Fruit.—The early varieties of Apples and Pears are in season, and should be gathered before they fall off. Some varieties of Apples are much better if used at once, while others are improved by being kept a few days in the fruit-room. It is very important that the fruit is dry and thoroughly ripe when gathered.

Raspberries.—Excepting the late autumn-fruiting varieties, the young canes should be reduced to the number needed for fruiting next year. This should be done at once, at the same time removing the old canes which have finished

fruiting. To assist in the ripening of the young canes, they should be spread out and tied singly to the wires.

Fruit Under Glass.

Strawberries.—The potting of any late-layered plants which are to be forced must now be soon completed if they are to be a success, as it is essential for them to become well established in their pots before being introduced to heat. All runners must be kept closely picked off as soon as they appear. During dry weather the plants should be well syringed to ward off attacks from red spider.

Late Vineries.—The Grapes now ripening should be given the necessary treatment for them to develop a high finish and colour. Some varieties, such as Gros Colmar and Mrs. Pince's Muscat, are rather difficult to get entirely black, as one likes to see them. This is sometimes owing to the lack of certain essentials in the soil, such as iron. Where this is the case, a note should now be made of it, so that it can be applied in the form of sulphate of iron when the Vines are dormant. The bad or exhausted condition of a border, also overcropping, are very often the cause of Grapes not colouring properly. Keep a moderate amount of heat in the pipes during sunless weather, and ventilate freely on all favourable occasions.

The Kitchen Garden.

Lettuces.—A good number of plants should be pricked out in a sheltered border for use during October and throughout November. The length of time they will keep will largely depend upon the weather; but, if possible, they should be protected from continuous rains to prevent damping.

Celery.—The main crop will now be ready for the first earthing-up, and should be first of all cleared of any small outside leaves, then tied with some material, such as thin raffia, which will decay after the soil has settled. If worms are troublesome, a light sprinkling of Vaporite, if applied before earthing-up commences, will tend to keep them out of the plants.

Cauliflower plants should be looked over occasionally, and any heads which have grown nearly large enough for use can be covered by bending over one or two of the inner leaves to keep them white.

French Beans.—If these are required during winter, a start should now be made by sowing either in pots or in beds in heated pits. Osborne's Forcing and Canadian Wonder are both good varieties for winter. Climbing French Beans could likewise be sown where these are favoured.

Spinach.—More should be sown to furnish leaves during early spring. The earlier-sown lot should now be thinned, leaving a space of 4 inches or 5 inches between the plants.

Onions.—Make a sowing of some varieties recommended to be sown at this season, such as Giant Rocca or any of the Tripoli varieties. These are very useful during spring and onwards.

Plants Under Glass.

Caladiums.—As the majority of these plants are fast losing colour and showing signs of maturing their foliage, they will be better removed to a drier atmosphere than where they have been growing. Withhold water by degrees, but not sufficiently to shrivel the plants excessively. The corms should be left in the soil and wintered in a fairly dry shed where the temperature does not fall below 50°.

Salvia splendens.—If there is accommodation indoors, these plants should now be taken in, away from danger of frost. They must still be fed liberally until they are in full flower. Those which have been planted outdoors should be gone round with a spade some days previous to lifting. After being potted, stand in the shade of a wall and keep well syringed.

Arum Lilies.—Whether planted out or left in their flowering pots, these Lilies will now be showing signs of active growth, and should be immediately potted up in good, new soil. After potting, stand in a frame for a time, where they can be readily protected if frost should threaten.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

SOME GOOD HARDY SHRUBS.

DURING recent years hardy flowering shrubs have become highly popular on account of their usefulness as decorative subjects in the flower garden or pleasure grounds. Once they are planted in a suitable position, they require a minimum of attention, and season after season they continue to produce a rich display of beautiful blossoms. Of course, a little attention in the way of pruning and manuring will be amply repaid by a much finer display than would be the case if they were left to their own sweet will. It is in the matter of pruning that many amateurs, and gardeners too, feel a good deal at sea, as different shrubs require to be differently treated. The season for planting will soon be with us, and perhaps it may not be altogether inopportune if I just mention a few shrubs which I have found satisfactory in every way.

Escallonia philippiana is one of the choicest hardy dwarf shrubs we have, growing freely in any fairly good soil. It has small shining green leaves, among which the white flowers are closely studded along the whole length of the shoots. It may be grown as a bush in the open or trained against a wall, and in either position it is exceedingly attractive.

Escallonia langleyensis is, if I mistake not, a hybrid, its parents being the variety just named and *E. macrantha*, and it has the growth and style of flowering of *E. philippiana* and the colour of *E. macrantha*, a bright rosy carmine. These two varieties make excellent companions, and succeed under similar treatment.

Ceanothus azureus is a Mexican shrub of great beauty, and well worthy of the attention of all hardy plant lovers. The flowers are quite small, but are produced in great quantities on an elongated thyrse in such a manner that they, at a short distance away, look like hairy brushes, pale blue in colour. The *Ceanothuses* succeed best on a warm wall, in which position they continue to flower till frost sets in. The variety *Gloire de Versailles* is perhaps the most desirable.

Choisya ternata (the Mexican Orange Flower) is a very distinct and beautiful evergreen shrub, with pure white, fragrant flowers resembling Orange blossom, and borne in large clusters. This excellent shrub requires to be planted in a sheltered spot, especially in the North, as it is of doubtful hardiness. It also requires good compost in which to grow. A mixture of good loam, leaf-mould and sand seems to suit its needs.

Buddleia variabilis is another splendid shrub, especially where autumn display is required. The varieties *magnifica*, *superba* and *veitchiana* are excellent, and few shrubs are more effective when in flower. The flowers are carried on densely packed spikes often 18 inches in length. The colours are deep violet and rosy purple, each flower having an orange yellow centre. The plants require a good deal of room, as they are rampant growers, often reaching 8 feet or 9 feet in height, and carry their graceful plumes at the extremities of the shoots. They require to be cut down hard every spring so as to get good, strong growths.

Robinia hispida (the Rose Acacia) is a beautiful flower; but, unfortunately, the habit of the plant is somewhat ungainly, which to a certain extent mars its beauty. However, it is well worthy of

consideration on account of its lovely flowers, which are produced in long, graceful racemes rosy pink in colour. The branches of the *Robinia* are exceedingly brittle; therefore it should never be planted in exposed situations.

South Ayrshire.

W. L.

STONE SPLITTING IN PEACHES AND NECTARINES

THERE are two reasons, one or both of which may be responsible for this evil; an unsuitable border may be one, while the other may be due to sudden fluctuations of temperature during the early stages of fruit forming. Of the two, it is usually the first named which is at fault, in which case all other efforts to keep the tree in order are of no avail, as everything depends on the roots being vigorous and plentiful in soil that suits them.

But, on the other hand, judicious management must accompany the best of borders, or stone splitting will be an evil to reckon with. This for the main part consists of avoiding sudden rises of temperature. The importance of this is the more easily understood when it is realised how tender the walls of the stones are in their early stages of growth, and consequently quite unable to withstand any sudden expanding force within them, such as takes place when rapid rises in temperature are allowed. The prevention of this during the early part of the year is not an easy matter, as it often happens that the days which favour us with sudden bursts of sunshine also give us more than is agreeable of biting winds. To open the ventilators on such days without causing disaster to the tender foliage requires more than usual care; but still, it is only by such means and the regulating of the heat in the hot-water pipes that the temperature can be kept anything like steady.

Watering is also a detail that calls for good judgment, and while it is not good practice to allow the border to become too dry at this stage, it is equally as injurious if it should be kept too wet. In fact, during the stoning period it is the better plan to practise moderation, to keep the tree from becoming unduly excited. Along with a free circulation of air, it is advisable to aim at a lower rather than a higher temperature, to give the walls of the stones time to harden, so that they will not suffer from the pressure that is within them, which, providing the action of the tree is normal, will be slow and in accordance with Nature, where stone splitting is not an evil to reckon with.

With such precautionary measures as these—and the stoning period shows no signs of being improved upon—it is practically safe to lay the blame on to an unhealthy root action. For this the border is responsible in most cases, and where there are no sure grounds for thinking otherwise, the best plan is to remake it at the earliest opportunity.

Renovating Borders.—It may, perhaps, be useful to set out briefly a few of the necessary details. Formerly it was the custom to make very wide and deep borders, and it must be said of these that the returns were not so unsatisfactory as the present-day style would lead one to expect. But time has proved that they were a waste of good turf and labour, and that better results are obtained when the

roots are confined in a smaller space, where feeding and top-dressing can be effectively carried out during the period of crop developing. In making a new border, the dimensions I should adhere to would be about ten feet wide and three feet deep, with a slope of a few inches to the sun. This depth provides for a 6-inch layer of broken brickbats and rough stones for drainage purposes. To confine the roots to this space, it is advisable to build a retaining wall 9 inches thick, and unless the substratum is of chalk or limestone, a base of concrete about three inches thick should be provided. This base should have a fall to the front of not less than half an inch to the foot, and terminate in a main drain level with the surface, having a fall sufficient to empty itself freely into a tank laid for the purpose, and from which a quantity of valuable liquid manure will be available for the garden during a season. The drainage material should be covered with thin turves, grass side downwards, so as to prevent the fine soil being washed into the drainage.

In regard to the compost, the plainer it is the better. Manures, except in the form of phosphates, should be avoided, but lime is absolutely necessary for the successful management of all stone fruits, and particularly in the case of Peaches and Nectarines, as these have a greater demand on lime than any other similar fruits, on account of their large stones. A good compost for these trees is one that consists mainly of good fibrous loam. It should be chopped into pieces about three inches square, and to every five cartloads of this add a load of screened old lime rubble and half a load of wood-ashes. Unless the soil be of very poor quality, no organic manure should be used; but should it be necessary, it may be given in the form of stable manure, without straw, at the rate of one load to five loads of soil. This will not be required in every case, but there are few soils that will not benefit from crushed bones given in the proportion of about two and a half hundred-weight to an average cartloads of soil. All these ingredients should be well mixed together and protected from heavy rains till required; but it is well to remember that the earlier the border is made, the warmer is the soil, and once in the house it remains in that condition, which means much to the tree in early spring. A border made on these lines is well drained and free from all matter that tends to incite sappy growth. But this is not all. Fluctuations of temperature must be avoided, or stone splitting will still be troublesome.

F. J. T.

TWO GOOD YELLOW-FLOWERED SHRUBS.

DURING the latter part of July and well into August, when flowering shrubs are none too plentiful, there are two which are perfectly hardy and ought to be more extensively grown. The least known of the two is the Mount Etna Broom, *Cytisus ætensis*. It is the quickest grower of all the Brooms, two specimens that I have, which were planted from 5-inch pots less than four years ago, now standing 8 feet high. The stems are long and slender, of semi-pendulous habit, and a pleasing shade of green; hence even in the winter the shrubs are by no means unattractive. For several weeks these shrubs have been cascades of yellow, the rather small, pea-shaped flowers being produced very lavishly. Although they open so comparatively late in the season, seeds

ripen well in normal years, and seedlings spring up in large quantities if the soil beneath the shrubs is cultivated. The other good yellow-flowered shrub that I have in mind is the Spanish Broom, *Spartium junceum*. This is a very old plant in our gardens, having been introduced to this country from Southern Europe as long ago as 1548. If left alone it will make a rather gaunt shrub from 8 feet to 12 feet high, its large and brilliant yellow flowers being produced in abundance from the end of June until nearly the end of August. The stems are cylindrical and Rush-like, and leaves small and few in number. Both this and the Mount Etna Broom are excellent for planting in sandy soil, where few other shrubs will grow, though both will make large specimens more rapidly in soil of better character. Planting should be done while the seedlings are small, and these are best obtained in pots, as the shrubs resent any disturbance of their roots, particularly when they are several years old. F. W. H.

COLOUR CHARTS.

A REPLY FROM AMERICA.

IN discussing the mooted question of colour standardisation and colour charts in *THE GARDEN* for March 27 and April 3, Mr. George Dillistone sets forth a number of objections to the use of a colour chart, which, it would seem, may be answered and overcome by the use of a little common sense.

To begin with, Mr. Dillistone mentions the substitution by the Royal Horticultural Society of Dr. Robert Ridgway's chart, "Colour Standards and Nomenclature," for the once recommended "Répertoire des Couleurs," and says that, when he sees Dr. Ridgway's chart and compares it with the French one, he expects to find many discrepancies. He will. They differ almost entirely in nomenclature, and there are fewer colours in the Ridgway chart.

As to the difference in colour perception, Dr. Ridgway's colours are combined by the use of the spectral discs, and are compiled by formula, and not "by eye." When it comes to the "matching up" of colour and flower, there will, of course, often be differences of opinion; but this is one of the points where common sense must come into play. If one considered the vagaries of the colour blind or the colour dull, there would be no colour standard and no colour nomenclature, any more than there would be a standard of musical pitch if we relied upon the varying opinions of the tone deaf. The compared opinions of a few good garden colorists ought to determine the standard colour of a flower quite as satisfactorily as the compared opinions of any other group of scientists can determine any other standard.

Now, in regard to all the fussy details of bright or cloudy days, different soils, the difference in hue of the same variety of flower at different flowering seasons, &c., there is but the one answer: Let us do the best we can. Mr. Dillistone objects that no one will want to purchase flowers from a description such as "'Rép. des Coul.,' p. 221; Nos. 2 to 3; Centre, p. 11." Of course not. But could you not imagine buying a *Phlox* described as follows: "Eosine pink (16): mass effect, a little paler." Or, if a more detailed description were desired, as it might be in a technical catalogue, "*Hemerocallis fulva*,

English red (7i), marked Morocco red (5k), throat deep chrome yellow (17b); mass effect, Brazil red (5i)." That is, if one *must* have the "pickling" markings; in the main, "mass effect" is best. Quite true, one can no more describe the bloom on a Tulip, the glistening tones of the *Fleur-de-Lys*, the velvet of the deepest red *Sweet William*, than one can put a name to that "livelier Iris" which "changes on the burnished dove." Why try? No more can one compare the texture of the petal, which has so much to do with its apparent colour, with that of any paper. Why hope to do so? Spectrum red is spectrum red, whether of velvet, paper, or glass; the same with all true colours. No two flowers on the same plant, even, will be identical in hue and tone throughout. The very best that can be done is for students of colour in all countries to match up the flowers to a good chart (we hope, Ridgway's) as accurately as they can in a clear light, not full sunlight, compare the mass effect to the very best of their ability, and "let it go at that." Under no circumstance of light or shade would we then have everything of a rose hue listed as "crimson," from Bee Balm (which is nearly pure spectrum red) to *Lychnis Viscaria splendens* and *Spiræa Anthony Waterer*; nor would the pale violet *Violas* or *Phlox divaricata* be sold to the unwary as "blue."

One American dealer asserts "you cannot have a standard of nomenclature." Why not? He describes the *Darwin Tulip Philippe de Commines* as "velvety maroon purple." Is it any harder to call it "velvety violet carmine, very dark"? Or to call the Cottage Tulip Miss Ellen Willmott "palest baryta yellow," which it is, according to Ridgway; instead of "soft primrose yellow," which it is not, as the primrose is a much greener yellow? Or, if "baryta" is a strange term, to call it, for simplification, the "palest tint of lemon chrome," which is the same thing? We call colours by some name, why not by a standard, and correct name? One person may now call "crimson" the same hue that another calls "carmine," and a third "cherry colour," which is foolish on the face of it.

Mr. Dillistone speaks of the difficulty of correct colour printing. Dr. Ridgway's chart is prepared as follows (for example, and speaking briefly): It is found by years of experiment that proportion A of standard dye No. 1 (names, &c., are all given in the preface to the chart) mixed with proportion B of dye No. 2 will give spectrum red, as measured by the colour wheel and the Maxwell discs, not by any guesswork. This pigment is then evenly applied by hand to a very large sheet of paper, which has a soft and not a shiny finish. This sheet is then cut into as many small sections as there are numbers of copies of the chart in an edition, and mounted on grey paper for binding; hence there is no "colour printing," and the colours are accurate.

The question of expense is also brought up. The regular Ridgway chart costs 8dol. This is a large price for the average individual to pay, but Dr. Ridgway will sell 500 copies of the work, in a lot, to garden clubs or similar organisations for 4dol. each. Clubs or horticultural societies could easily combine to order such a number if the chart were generally adopted, and dealers could easily afford the 8dol. At present Messrs. Kelway and Son advertise in their catalogue that they have in their office a copy of the Royal Horticultural Society's chart, and that customers wishing to order by colour number from this

chart may do so. The Ridgway chart could be used in the same manner. Should England and America combine to use this chart, other nations would soon adopt it (as it is by far the simplest chart yet shown), and the nomenclature could be literally translated.

Mr. Dillistone's own confession concerning the confusion of colour names is in itself a plea for a standard of nomenclature, and when so simple, compact and scientifically correct a chart is already on the market, why go all around Robin Hood's barn, waste time, energy and language, and hopelessly retard artistic and scientific colour scheming in the garden by hunting aimlessly for another one? MARY YOUNGS.

(Secretary, Shedowa Garden Club.)

Long Island, U.S.A.

THE NATIVE LADY'S SLIPPER.

(*CYPRIPEDIUM CALCEOLUS*.)

IN "The Flora of the Alps" Mr. A. W. Bennett says this is one of the most striking of European plants, and, further, that it is met with occasionally in stony woods at a moderately high elevation in Switzerland, Jura, Tyrol, Lombardy, Dauphiny and the Pyrenees, but is nowhere abundant. It is well known to botanists that this most interesting plant is occasionally to be found in this country. While botanising recently in the Yorkshire highlands I had the good fortune to find this plant growing in considerable abundance, one patch alone consisting of at least twenty plants. For upwards of thirty years I have been on the look-out for this plant in its native habitat, Yorkshire, the first records of which we find in the books of Parkinson (1640) and Ray (1670).

Ingleborough appears to be the centre of distribution of this delightful British plant. Its habitat was known to the late Abraham Stansfield, the celebrated British Fern grower of Todmorden, and also to John Nowell, a well-known cryptogamic botanist. It was also known to James Percival, a working man botanist; and two other persons well known to me knew of the habitat of this rare British plant. In each case it has a different station. It has also been recorded from Durham and Westmorland, always upon the same geological formation, Yoredale or mountain limestone, with Ingleborough as the centre of distribution. It must, therefore, be interesting to the numerous readers of *THE GARDEN* to know that this plant is still to be found wild in our Yorkshire highlands.

As far as I can learn, it is always found growing under similar conditions, viz., in shady woods in rough, rocky ground, and nearly always growing with Lily of the Valley. Now, these two plants are very much alike in a wild state, and he must be a very keen-sighted person who happens to find this, "Our Lady's Slipper," as it was known in the days before the Reformation.

The plants that I saw could not be lifted without a pickaxe, so that will give one an idea as to the ground in which they were growing. I have made three journeys to see if the plants would flower this season. At first sight they had every appearance of blooming this year. But not a single flower appeared; indeed, I am told that in its European habitats it seldom flowers. But if it should do so, the blooms last on the plant

for from thirty to forty days. This, then, is some compensation for its shyness in blooming

Your correspondent Lucy Joshua, on page 361, in your issue of July 24, describes this plant as growing in sphagnum. This must be a mistake, as the sphagnum is not usually a limestone plant. One of the well-known stations for this plant is in some woods near Engelberg. I have several times looked for it in these woods, but have not had the good fortune to see it growing there. The conditions there, however, are exactly similar to those which obtain in our Yorkshire highlands—the same sorts of trees, the same undergrowth filled with Lily of the Valley and Dog's Mercury.

In regard to the cultivation of this plant, which is said to prefer limestone, I have seen it grown, and successfully grown, here in Southport, flowering well each succeeding year on the top of a dry rockery composed chiefly of sandy soil. Here at Kew it does equally well in ordinary peaty soil. The only extra attention which the plant receives is a little shade during the flowering period. My soil is almost devoid of lime, so it is at once apparent that lime is not an essential element in the cultivation of this, the most interesting of all our European plants.

W. H. STANSFIELD.

Brantwood, Kew, Southport.

HOW TO PROLONG THE STRAWBERRY SEASON.

THE arrival of several nurserymen's lists of Strawberry plants serves as a reminder that during the next week or two is the best time of the year for making new beds of this useful fruit. Strong runners planted at this time become well established before the winter, and will, if the elements prove normal, give a good crop of berries during June and July of next year. This, really, is the great advantage of early autumn planting. If the work is deferred until the spring, very little fruit will be available next year, and a loss of practically twelve months will result. Any reasonably good soil will grow excellent Strawberries, but it must be deeply dug and well manured, especially if the plants are to remain for two or three years. Treading afterwards to consolidate the surface before planting also is essential, as the plants appreciate a firm rooting medium. The distance apart to set them will depend upon the time they are to remain. If the one year system is adopted, *i.e.*, a new bed is made every August and destroyed the following year after the fruit has been gathered, 2 feet between the rows and 15 inches between the plants will suffice; but for more permanent beds, 2 feet 6 inches and 18 inches respectively must be allowed. Of varieties there are now a large number, yet for nearly all purposes four, or at the most five, will suffice. For a good all-round and early Strawberry, Royal Sovereign has not yet been surpassed. It thrives nearly anywhere, always crops well and, as the fruit is firm, it is excellent for market. Its rather acid flavour is a point against it, though many prefer this to the sweeter varieties. Vicomtesse Héricart de Thury is a good early Strawberry. It is rather small, but a heavy cropper, and the fruit is sweet and of excellent flavour. To follow this and Royal Sovereign, either The Bedford or Bedford

Champion should be selected. My experience of the former is that it does well the first year, but cannot be relied upon after that; hence to get it good a new bed should be made each year. Bedford Champion is slightly earlier, a heavy cropper, and does well during the first, second and third years. The quality of both leaves nothing to be desired. For a late variety choose Laxton's Latest or Givon's Late Prolific. Both are excellent in every way. With the varieties named it is easily possible to have good Strawberries for at least two months, instead of only a fortnight or three weeks, where only one variety is grown. One would think that market growers would find it pay them well to grow the late varieties named, as prices, when the fruits were ready, would be much higher than at the height of the season.

F. W. H.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

TREES AND SHRUBS.

OAK SEEDLINGS (R. F. C.).—The Oak seedlings can be lifted and planted in nursery rows, but it would be as well to leave them where they are until early October. Take them up carefully and plant them in rows a foot apart, and the plants 6 inches apart in the rows. After two years in that position they should be lifted and either planted out permanently or replanted in the nursery, giving more room between the rows and plants. If any roots are broken, cut them off beyond the wounds with a sharp knife. Should any of the plants become stunted, cut them back to the ground line. New shoots will then be formed, and the strongest and straightest can be reserved for the future trees, the others being removed when a few inches long.

MAGNOLIA STEMS UNHEALTHY (H. T.).—We do not know of any particular bark disease that attacks Magnolias. *M. grandiflora*, when growing against a warm wall, is sometimes attacked by mealy bug, and is cleaned by syringing with a paraffin wash. From what is said of the disease, we imagine that it must be a species of chermes, such as attacks various kinds of conifers or is closely allied to those species. It would be advisable to scrub the trunk with a strong soft soap solution into which a little paraffin has been mixed; then syringe the remainder of the plant with a similar wash. The present year is a particularly bad one for insect pests on trees, many kinds that are usually quite free from insects being badly infested at the present time. On the other hand, the eruptions may be due to some other cause, and the best plan would be to send a small section of bark if you do not think that they are due to insect agency.

THE GREENHOUSE.

THE BOTTLE-BRUSH FLOWER (F. H., Lancs.).—The Bottle-brush Flower is commonly known as *Metrosideros floribunda*, but its correct name is *Callistemon salignus*. It is a native of Australia, whence it was introduced during the early years of the last century. This *Callistemon* is propagated by cuttings of the half-ripened shoots taken off at a length of about three inches and dibbled into well-drained pots filled firmly with a mixture of peat and sand sifted through a quarter-inch mesh sieve. They must then be placed in a structure in which a temperature somewhat above that of an ordinary greenhouse is maintained, and covered with a bell-glass, or put into a propagating-case. The cuttings will take a couple of months or so to root, when they must be gradually

inured to the ordinary atmosphere of the structure. Then they should be potted singly into small pots in a compost made up of equal parts of peat and loam, with about half a part of sand. When the roots have taken hold of the new soil, the tops of the plants should be pinched out in order to ensure a bushy habit of growth. Established plants may be treated much as Azaleas; that is to say, after flowering, any straggling shoots may be shortened back and the plants encouraged to grow. During the summer they may be stood out of doors. Annual repotting is by no means necessary, but an occasional stimulant will be beneficial. They need a minimum temperature of 45° in the winter.

FRUIT GARDEN.

CHERRY SHOOT FOR EXAMINATION (C. W. L.).—The shoot sent is not sufficient to enable us to say to what the trouble with the Cherries is due. It appears to lie behind the part from which the twig was cut, and possibly may be the result of gumming.

PEACHES DROPPING THEIR FRUIT (A. Dawson).—The kernels of the Peach stones are decayed, and no doubt this is the cause of the fruit dropping off prematurely. The decayed condition of the kernels, we believe, is due to the defective fertilisation of the flowers. To guard against this trouble in future, be mindful of fertilising the blossom of your trees with the pollen of some other healthy growing one which may be in bloom at the same time, or by its own if no other is to be had.

MISCELLANEOUS.

WOODEN TRAYS AND STANDS FOR STORING APPLES AND POTATOES (T. H. Thornely).—Messrs. H. Blacknell, Fleet Saw Mills, Fleet, Hants, will give you all particulars and prices relating to these. Saturate the haybands in a strong solution of Tobacco water.

CELERY LEAVES ATTACKED (Emsworth).—The Celery leaves are badly attacked by the Celery leaf rust, due to the fungus *Septoria petroselinii* var. *Apii*. Spraying with Bordeaux or Burgundy mixture will be the best method of checking it so long as it has not made much headway on the plants; but if it has progressed far, it will be useless to attempt much now, we fear. Spraying should have been commenced in May.

OBITUARY.

MATTHEW CAMPBELL, BLANTYRE.

WE have received with much regret the information that Mr. Matthew Campbell, of the firm of Messrs. M. Campbell and Sons, Blantyre, Lanarkshire, died on August 20. Mr. Campbell, who was in his eightieth year, was one of the best known of Scottish nurserymen, especially among exhibitors and frequenters of shows, where his familiar figure was always welcome and where his presence as a judge or as an exhibitor was received with pleasure and satisfaction. At the Auchinraith Nurseries florist's flowers were a leading feature and the quality and cultivation were of the highest kind, as was evidenced by the awards gained at the principal shows and by the magnificent displays made of collections of Dahlias, Carnations, &c. As a judge Mr. Campbell was held in high esteem, everyone feeling that he was one with a full acquaintance with the classes he took in hand, and that each and every exhibit would have justice done to it. He was much respected in business and private life. Before beginning business he had a long experience in private gardens, and was gardener at Mauldslee Castle before going to Blantyre.

TRADE NOTE.

Now that readers will be busy potting up bulbs for flowering during the winter months, we would draw attention to the special bulb catalogue which is issued by Robert Sydenham, Limited, Tenby Street, Birmingham. In addition to prices of all kinds of suitable bulbs, there are valuable particulars included concerning the growing of bulbs in fibre, a feature for which this firm has for many years been renowned. This year we are interested to notice that they are putting on the market Professor Bottomley's manure named Humogen. This is stated to be a particularly good fertiliser for bulbs, and it certainly is well worth giving a trial. We understand that a copy of this interesting catalogue will be sent post free to any reader who cares to apply for it.

* * The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

THE GARDEN.

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SEPTEMBER 4, 1915.

NOTES OF THE WEEK.

The Death of Mr. F. W. Harvey.—Just as we go to press we learn, with infinite regret, of the sudden death of our Editor, Mr. F. W. Harvey. Mr. Harvey had been ailing slightly for a few days, when his illness was diagnosed as an abscess on the brain. An immediate operation was necessary, from which he did not long rally, and he succumbed, a week later, on Tuesday, August 31. An appreciation of Mr. Harvey's life and career will appear in our next issue. In the meantime we feel sure that our readers and Mr. Harvey's innumerable friends in the horticultural world will echo our feelings of sincere regret at his untimely end. He was a most lovable, upright and conscientious man, and with his death a deal of valuable knowledge goes out of the world.

A Gardener's Son Wins the V.C.—In the recently issued lists of Naval V.C.'s will be seen the name of Able Seaman W. C. Williams of H.M.S. Hussar. He was a son of Mr. W. Williams, a foreman in Messrs. Pillinger's Nursery, Chepstow, a position he has held for upwards of twenty-seven years. W. C. Williams won his V.C. at the historic landing at "V." Beach in Gallipoli. The lighters which were to form the bridge had broken adrift, and Williams, in assisting, held on to a line in the water for over an hour under heavy fire until killed. Much sympathy will be extended to Mr. Williams in his sad loss.

Flower Seeds for the Front.—Messrs. Webb and Sons, Limited, Seedsmen, Stourbridge, recently received the following communication from the Commandant of one of the large base camps for British troops in France: "I write to thank you again for the flower seeds you sent for the soldiers; they all came up and have made a splendid show." Messrs. Webb say the seeds were not sown until June, so the result testifies both to the favourable climatic conditions of the district and the cultural skill of our soldiers.

A Dwarf Bedding Dahlia.—In several of the Liverpool parks and the Botanic Garden the dwarf red Dahlia Aggie Hutt is freely used as a bedding plant. Bushy in growth and only from 1½ feet to 2 feet high, it is effectively planted in association with Fuchsias, Geraniums, and the general run of bedding plants. As a companion to Chrysanthemum (Double White Marguerite) Mrs. F. Sander, Dahlia Aggie Hutt is particularly

effective. In both form, size and colour the flowers resemble a one-time popular favourite, Glare of the Garden, while it has also the free-flowering quality of that variety, and displays the blooms well above the foliage.

Delphiniums.—The fine display of secondary spikes of Delphiniums which Mr. W. Wells put up at Vincent Square on August 17 was useful from several points of view. One was the difference in the type of spikes and their

a rich deep pure blue with a light grey-brown eye. In each case the arrangement of the blooms on the spike was loose and light-looking, and just what ladies like for cutting.

Rose Sander's White.—As stated by "Ess," page 420, this is a desirable free-flowering, late climbing Rose of excellent quality. While the blooms are young, each carries a tinge of yellow in the centre, and, what is of great importance, has a lovely perfume given out by the central anthers.

The Colour of Eryngium giganteum.

Respecting the excellent illustration of *Eryngium giganteum* on page 395 of THE GARDEN, August 14, Messrs. Bees, Limited, Mill Street, Liverpool, very kindly point out that the colour is not steely blue, but ivory white, sometimes shaded pale biscuit or buff. Possibly our contributor had Oliver's Sea Holly in mind, or *E. alpinum*, an even more magnificent plant. A feature worth mentioning is the facility with which Sea Hollies can be dried for winter decoration without losing their attractiveness.

A Handsome Japanese Windflower.

There are many varieties of *Anemone japonica*, and of them none can excel the variety Kentish White. We are reminded of the refined beauty of this variety by the arrival of a box of medium-sized blooms sent by the raisers, Messrs. George Bunyard and Co., Limited, The Royal Nurseries, Maidstone. The flowers are inclined to petalody, and the larger they are, the more double they appear. It is well to note that this variety requires a dry situation in winter, since it is a little tender compared to any of the other japonica varieties. However, it is well worth the slight extra care that is necessary.

A Useful Late-Flowering Shrub.

Clethra alnifolia, the Sweet Pepper Bush, is an attractive hardy shrub, a native of Eastern North America. A deciduous shrub some 4 feet to 6 feet or more

greater or less fitness for garden decoration or for cutting for the house. Putting on one side the exceptional cases of extra large receptacles, there is no doubt but that the looser spikes are far the most pleasing in what may be called everybody's sized vases. Three varieties stood out in the collection as being especially adapted for such purposes: *Moerheimii*, which is a pure white sport from the old and well-known lovely light blue *Belladonna*; *Capri*, an extremely taking very pale blue with an ivory white eye; and Mrs. Thompson.

in height, the bushes are very conspicuous at the present time, being freely clothed with racemes of white flowers. Members of the Natural Order Ericaceae, the *Clethras* thrive under somewhat similar conditions to *Rhododendrons*, including a peaty soil. Seeds, cuttings and layering each provide a ready means of propagation. *Clethra alnifolia paniculata* is an equally desirable plant with slightly longer flower-spikes; it is rather stronger in growth and a little later in flowering.



THE LATE MR. F. W. HARVEY.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

A Good Wall Plant.—Let me advise your correspondent "Subscriber" to grow Lardiz-



CARPENTERIA CALIFORNICA IN A SCOTTISH GARDEN.

abala biternata, a very handsome evergreen and a capital wall plant. Buddleia Colvillei will certainly thrive a long way north of the Southern Counties. It flowers freely here and grows with amazing quickness.—F. A. STURGE, Wrexham.

Some Notes on Endive.—This is a vegetable which one does not often see in gardens, so I offer no excuse for sending up this little note about it. It is one of the easiest vegetables to grow, though, like Spinach, it is apt to run to seed, and may be used, blanched, as an addition to the salad-bowl, or, unblanched, may be cooked (boiled) in the same manner as Lettuce. This vegetable does best on land well dressed with stable manure, and although sowings may with advantage be made in the spring, the present is undoubtedly a suitable time to sow. The position chosen should be one of light shade, and the seed sown in shallow drills 9 inches apart. When the young plants are of a convenient size, plant them out singly, 6 inches apart, in rows a foot asunder in semi-shade again, and keep the hoe and water-pot going in dry weather. Blanch by tying up, or by putting a slate on to the plants. Endive, like Lettuce, must be grown quickly and be well supplied with water, or it will bolt to seed. If sown in September, it can be used in the very late autumn or during the following winter and spring. The best sorts to grow for summer consumption are Digswell's Prize and White Curled; and the best for winter, Green Curled and Batavian.—E. E. T.

Cats in Gardens.—On page 417 of THE GARDEN, issue August 21, there is a reply to "Hall" on the subject of keeping cats off plants. The advice given is: "We keep a well-trained Irish terrier, who does the duty effectively." While

asking pardon for questioning this advice, I think "Hall" would be well advised to think carefully before he adopts it. I can well imagine the exciting chases which would take place during the first few days after the terrier had been introduced, and the consequent damage. I think if "Hall" sinks some wide-necked bottles up to the rims in the ground and puts a little strong ammonia in each (putting the bottles, if possible, near the place or places where the cats enter the garden), he will have no more trouble. Experience shows that when cats have smelt the ammonia, they do not return to the garden in a hurry, and this is generally the most safe and sure plan to adopt.—E. T. ELLIS, Weetwood, Ecclesall, Sheffield.

Rose Blush Rambler and Carpenteria.—The enclosed photographs may interest you. Rose Blush Rambler is the plant of which I sent you a photograph last year and was not suitable for reproduction. The Carpenteria, except for the shelter of the wall, gets no protection of any kind in winter. I have had it for eight or nine years, and it flowers freely every year. It is not usually considered very hardy, but it might be grown more generally than it is, and is one of the most beautiful of flowering shrubs. We are 450 feet above sea level and thirty-six miles from it.—R., Galashiels.

Tomato Plants Diseased.—Plants grown under glass and forced on through not ventilating the structures amply up to the middle of July developed the disease in the leaves very badly indeed during the last week in July. Other plants, more freely ventilated by day and much less at night, have not suffered much from the disease. Outside plants, which were carefully hardened before being planted out, have not been touched by it. The specimens first referred to were rendered very tender through lack of ventilation, and then, when the cold nights and very moist atmosphere of July came, the leaves were soon attacked. The hardily grown plants throughout withstood the disease much better. Since the warmer nights of August came, and the greater amount of sunshine, the worst affected plants have recovered, especially where lateral shoots have been allowed to grow near the top. These observations refer to plants grown in the same district.—G. G.

An Interesting Surrey Garden. The article by Miss Gertrude Jekyll and the charming photographs which appeared in THE GARDEN for August 21 are very interesting and instructive. I have recently visited some old gardens where arches, walls and suitable flowering subjects harmonise as they do in the garden at Westbrook, Surrey. Such notes and photographs are highly educational, especially in these days when

so many lovers of gardens are doing their best to introduce similar features. In doing this in many modern gardens, much careful forethought is needful, else failure will result. There is, on the other hand, a splendid opportunity in many old-world gardens to make such features more prominent by the judicious planting of hardy subjects and by minor alterations and additions, without in the least spoiling their general appearance, and the time for carrying out such work is fast approaching.—Avon

The Crinums.—These are much hardier than is generally supposed. Our stock plants in the open have never been killed by frost, and we only protect them with ashes or Cocoanut fibre when severe weather sets in; just now they are splendid. C. Powellii, rosy, is 3 feet to 4 feet, and C. P. album is 3 feet, with stout stems and exquisite white bell-shaped flowers, the plants giving dozens of spikes. Our soil is light, over greensand stone. In heavier land some drainage would be needed, but generally they should be largely grown in the Southern Counties with success. They are most welcome in mid-August.—GEORGE BUNYARD, Maidstone.

A Beautiful Perennial.—I must write in praise of the beautiful perennial Hunnemannia fumariæ-folia. Early and late the golden blossoms shine bright. All the plants in one bed were from a plant that seeded with me. The foliage is so uncommon. I grow it in sunshine—ordinary soil suits it. Sir F. Moore tells me that it does not "do" at the Glasnevin Gardens. For fear of a hard winter it might be well to pot a few plants in late autumn and shelter them in a cool greenhouse, sowing their seeds. For those Rose-growers who have plenty of space, I recommend them to plant Betty and Duchess of Wellington.—FREDERICK LAWLESS, Maretimo, Blackrock, County Dublin.

Rose Gloire des Rosomanes.—This old pillar Rose has been pretty well relegated to the rear rank by such varieties as Ards Pillar and Carmine



ROSE BLUSH RAMBLER CLOTHING A WALL.

Pillar, although several nurserymen still offer it for sale. To the younger men who may not know it, I would recommend Gloire des Rosomanes as a very desirable semi-double crimson of great vigour and coming early into flower. With us it generally shows flower about the first week in June, but it was a week later this year.—CHARLES COMFORT, *Midlothian*.

The Single Sweet Rockets.—Although perhaps not admissible in the select mixed border as the double varieties are, yet the single Sweet Rockets have much to recommend them, and should find a place either in the informal garden or the strictly wild garden if for nothing else but their delicious perfume. I would like to point out that it is necessary to get seed from a reliable source, as there are some forms much superior to others as regards the density of the flower-spikes, and, in the case of the purple variety, as to the shade of colour, some forms being a dull, soulless purple, while others are a bright purple. Like most other biennials, the best results are obtained when the plants are transferred to their flowering quarters in the autumn.—CALEDONIA.

Birds and Ripe Fruits.—Now that various kinds of Pears are ripening, no doubt the birds will do their best to get more than their share. Not only do birds eat great quantities of fruit every year, but they spoil quite as much by pecking and rendering it unfit for use by the owners. I have frequently been assured that if I put down vessels of water, the birds would not touch the fruit. Having a Mulberry tree growing by the side of a large pond, I once asked, when the old tale was repeated to me, why it was that the birds preferred the Mulberries to the water in the pond? I well remember an enthusiastic amateur gardener pointing out a splendid Cherry tree on the end of a building. He had also been advised to provide plenty of water for the birds and save his Cherries; but neither the vessels of water, carefully put about, nor a little faulty net kept away the birds. "No," he said, "they leave the water and creep in under the net." I think it would be the best policy to trust to sound nets, well fixed, and not to water. Usually the good people who advocate the water remedy have no fruit for the birds to eat.—G. G.

Labels in Flower Borders.—There is generally most grumbling when plants are not labelled and visitors admire the flowers but cannot find out what kinds they are. I am now taking exception to the labels themselves, which may, in my humble opinion, be an eyesore. I lately visited a large garden in which there was recently made a magnificent water garden and rockery. It seemed to me that nearly every plant was labelled. I did not object to that feature, but the labels were placed with such regularity that one could see scores of them from one point, arranged in such precise order as to draw one's attention away from the plants to them generally. Surely some better plan could have been adopted. The labels to the plants could have been placed in a prominent position enough to permit of all visitors reading the names on them when standing in front of the specimens, but not so that they could see a whole army of them from the same spot and practically all facing the same direction.—AVON.

Spiræa Aitchisonii.—For some years I regretted the purchase of *Spiræa Aitchisonii*, which refused to bloom, much to my disappointment. It was, indeed, under contemplation to eject it from the garden as "a cumberer of the ground." How-

ever, it received a respite, and a few years ago proved that it was worthy of this consideration, as it then began to yield its flat heads of white flowers in considerable quantities. From that time *S. Aitchisonii* has gone on increasing in beauty and favour, and now is looked upon as a shrub well recompensing me for the space it occupies. In a corner by a 6-foot wall it has long overtopped the wall, and this year is upwards of 12 feet high. It looks well with its good foliage, reminding one of that of an Ash, but is still finer when it is in flower. It now blooms quite freely every year. During July it gave many heads of flowers, and on August 9 was still in bloom, although its pristine beauty of blossom was much reduced. It has plenty of sun, and is in a fairly dry soil.—S. ARNOTT, *Dumfries*.

Wichuraiana Rose Debutante for Arches.—Going through a capital collection of Rambler Roses—*wichuraiana* and *Polyantha*—in the gardens of Captain Hope at St. Mary's Isle, Kirkcudbrightshire, the other day, undoubtedly the finest sight of all was presented by an arch of *Débutante*. It is almost impossible to do justice to the beauty of this arch, which spanned one of the broad paths in the gardens and was absolutely laden with clusters of soft pink flowers. It is a Rose which I have known for a long time (it was sent out by Mr. M. H. Walsh in 1905), but I have never seen it in such perfect beauty as on this occasion. What gives it much of its value for an arch does not appear so well on a pillar. This is the pendent habit of the clusters of flowers, which hang down from the arch in a charming way, reminding one of the *Wistaria* in this feature. *Débutante* is also a very free grower, and will soon cover an arch. Mr. Jeffrey, Captain Hope's gardener, grows it over an arch built up of iron tubes, attached to each other by wire. He is of opinion that these are preferable to solid iron rods, and that Roses on these are not so liable to be injured by frost as on the latter.—SUB ROSA.

Preserving Green Figs.—A correspondent in THE GARDEN of August 21 asks for a way of bottling and preserving Green Figs, and I send her a recipe. If you care for details of bottling, I shall be pleased to send them. The Fig preserve is an original recipe and has been well tested. The following is the recipe: "There are several ways of dealing with this fruit. If the Figs have attained their full size and are nearly ripe, they can be bottled in the ordinary way, using a weak syrup. Or they may be made into a delicious preserve. Have ready a pan of boiling water in which a small pinch of bicarbonate of soda has been dissolved. Dip the Figs in this and allow them to boil for five minutes. Take them out and leave them to drain on a sieve. Weigh the fruit, and allow three-quarters of a pound of sugar for each pound of fruit. Take a quarter of the sugar and dissolve it in a pint of water to every four pounds of fruit. Boil the syrup and, when it is clear, place the Figs in it and simmer gently for fifteen minutes; then remove from the fire and leave till the next day. Drain off the syrup, boil it up with the rest of the sugar, and simmer the Figs till they look clear; then set aside for six hours and boil them for half an hour, very slowly. Place the Figs in jars, boil the syrup until it is thick and 'syrupy' looking, and pour it over the Figs. This is a delicious preserve, but it must not be eaten until it has been kept for six months. The Figs, if nearly ripe, can be made into a delicious jam. Greener fruit can be stewed, flavoured with ginger, and eaten with custard."—H. T. C.

LACHENALIAS.

BY THE REV. JOSEPH JACOB.

THIS is the time when the bulbs of these attractive little flowers should be potted. Between the coming of the grouse and the partridge is the ideal fortnight for the operation. Every week that passes after that is a nail in their coffin. How seldom one sees well-grown plants, and what caricatures are the miserable-looking cut blooms that traders sometimes treat us to at the Royal Horticultural Society's Tuesday meetings in the early months of the year! No plants need good and proper treatment more than these. Their requirements are very simple, but very necessary, and, if these cannot be given, their culture should not be attempted.

The three bed-rock essentials are: (1) *Early* planting. Do not attempt it after September is past. (2) *Cool* and *airy* quarters during the winter months. The temperature may vary between 38° to 40° at night to 50° to 55° in the daytime. Plenty of air, but no cold draughts. (3) *Thorough* ripening of the bulbs in the summer. The other points which contribute to their well-being are rich, light, well-drained soil; keeping the pots as long as possible in a perfectly cold frame (only at the approach of frost should they be housed); and feeding the plants in January and onwards with a weak stimulant. *Pendula* is an exception, and should be housed earlier than the others, as it may easily be had in flower for Christmas, when red flowers always seem peculiarly appropriate. Tricolor and quadricolor are now far surpassed by many of the newer varieties; but I do not think *pendula gigantea* (syn. *aureliana*) is such a pleasing shade of colour as the dull *pendula*.

My selections are: (1) *Pendula*, dull orange red (141.1 in the "Répertoire des Couleurs"). (2) *Nelsoni*, rich yellow. (3) *Cawston Gem*, greenish yellow, with narrow red edge to bells. (4) *Ruth Lane*, palish yellow bells, open-mouthed, with a narrow margin of bright claret. (5) *His Reverence*, the best of the greenish yellow selfs. (6) *Brightness*, rich yellow, with a wide edge of claret; red tops to the spikes. There are several more very good indeed, such as *Rose Barton*, *Shiner*, *W. E. Gumbleton*, *John Geoghegan*, *luteola maculata* and *St. Patrick*, but I am a little doubtful if all are in commerce.

A GOOD GREENHOUSE BEGONIA.

FEW warm-house plants are more delightful than *Begonia* President Carnot when well grown, and few bloom for such an extended period. I have cultivated it here for the last ten years, with considerable success, and so a few notes on my methods of treatment may be of interest to others who are thinking of trying it. The cuttings are particularly easy to root, and may be inserted at almost any time. Personally, I strike a few each winter at the time I cut back the plants, and scarcely one fails to root. The soil for the cuttings is of no great account, any light, sandy material sufficing; but a mixture of peat, loam and sand will favour rapid striking. I insert three or four cuttings round the edge of a 5-inch pot, and as soon as they are well rooted, pot off singly into 4-inch pots, soil of much the same kind being employed.

When these small pots are well filled with roots, give a shift into the 7-inch size, using richer and



VERONICA SPICATA IN THE ROYAL HORTICULTURAL SOCIETY'S ROCK GARDEN AT WISLEY.

rougher compost. A good mixture for the purpose is equal parts of good fibrous loam and fibrous brown peat, with half a part of leaf-mould and sufficient coarse sharp sand to ensure the other ingredients being kept sweet. As with all other Begonias, however, too much sand must be avoided, or the mite may prove troublesome. Should the loam be of poor quality, add a small quantity of dry manure and a good dusting of bone-meal. As a rule, this shift will suffice for the first year. As growth advances, stake and tie the shoots neatly, and in due time fine bunches of bloom will appear, these lasting for some time.

In the beginning of the following year the plants should be kept on the dry side for ten days, and then be cut back to about nine inches from the pot. As soon as growth starts again, give a shift into pots 10 inches in diameter, using the same kind of compost. As growth advances, strong stakes 6 feet in length must be provided, and the shoots loosely but securely fastened thereto. By the month of July gentle feeding with weak liquid manure, or, better still, liquid made with Ichthemic Guano, should be administered twice a week. If these hints are followed, there will be a fine show of bloom right up till Christmas or longer.

Subsequent treatment consists in cutting the plants down to from 12 inches to 15 inches from the soil each spring and top-dressing liberally with fresh soil and Thomson's Plant Manure, allowing a tablespoonful of the latter to each plant. Other small details of culture are to provide a little shade—if not for the tops, at least for the pots and the lower parts of the stems—and careful watering, as dryness at the roots is apt to cause the flowers to drop and the foliage to become yellow. I have sometimes seen this Begonia trained as a climber, but have seldom seen it succeed thus. Here I train it to 6-foot Bamboos, and set the plants close to a cement back wall of a lean-to stove, or, rather, intermediate house,

and in this position they thrive and bloom luxuriantly.

Preston House Gardens, Linlithgow. C. BLAIR.

THE VERONICAS OR SPEEDWELLS.

THE plants that are members of this family are a large and widespread host, and among them we find some of the most interesting and useful of our outdoor garden flowers. They naturally divide themselves into two distinct sections, the one comprising those that are of a decidedly shrubby character, and the other those that have stems of a succulent, and therefore less enduring nature. The shrubby Speedwells are, perhaps, the best known, most of them hailing from New Zealand. They are evergreen, and among them we find some exceedingly useful winter-flowering subjects. For instance, *V. speciosa* and *V. Andersonii*, with their several varieties, frequently continue their floral display until well into January, the spikes of purple, rose, or deep blue blossoms showing up well above the dull green foliage. All the shrubby Veronicas must, however, be given soil that is perfectly drained and contains a good percentage of sand. They all, with the exception of the tall-growing *V. Traversii*, ought to be planted in positions sheltered from cold north or east winds, as they are none too hardy during severe spells of hard weather. *V. Traversii* is, however, quite hardy in the London district, where it will quickly make a neat bush about 4 feet high and nearly as much in diameter, its rather small spikes of very pale lilac flowers being produced in great profusion during June and July.

The Willow-leaved Speedwell, *V. salicifolia*, is also a good dwarf shrub for warm places. It

grows about 2 feet high and has long, narrow leaves, and flowers of white or purplish hue. The variegated-leaved form of *V. Andersonii* is among the most beautiful of the few really good variegated plants, and one finds it extensively and alas! indiscriminately used for summer bedding effects in the London parks. In its place it is excellent, but too often it is obviously misplaced.

These shrubby Veronicas are not difficult to propagate. Cuttings made during the next few weeks from young shoots, and planted in sandy soil in a cold frame in a manner similar to that adopted for bedding *Calceolarias* and *Pentstemons*, will quickly root and soon form nice little shrubs. A good number ought to be rooted every autumn, so that if a severe winter is experienced and casualties among the older plants heavy, there will be sufficient young ones to take their places.

When we come to the soft-wooded section of the Speedwells, we find a great deal of variation in stature and habit. Thus, such species as *V. repens* and *V. rupestris* are trailing plants admirably

adapted for the rock garden; while *V. longifolia* and its variety *subsessilis* attain a height of 2 feet or even more, and are among the best of our blue flowers for the mixed border. Like the shrubby species, these herbaceous Speedwells appreciate soil that is of a porous character, though the stronger-growing kinds, such as *longifolia*, will not give of their best unless the soil has been well manured. Most of them seed freely, and if this is allowed to ripen and fall, plenty of seedlings can usually be found near the old plants.

The accompanying illustrations, from photographs taken a few weeks ago, represent two beautiful Speedwells growing in the Royal Horticultural Society's gardens at Wisley. One is *V. spicata*, a charming plant with pale blue flowers, these, however, varying in their intensity on different plants. It is growing in a position facing east and is now about a foot high. The other illustration shows its white variety, *V. spicata alba*. This plant faces south-west and is about 18 inches high. Both species and variety continue to flower over a long period, and may be regarded as two of the most useful summer-flowering plants that are available for the rock garden. As an indication of their rapid growth, it may be interesting to mention that both were planted only a little more than a year ago.

The type plant, *V. spicata*, is really a native of Britain, though its habitat is limited to a few localities. It has been found in Suffolk, Cambridgeshire and Wales, and possibly in one or two other counties, but it is known to very few botanists except as a garden plant. In a wild state its flower-spikes seldom attain a height of more than 6 inches, and even under cultivation it is not often that they grow so tall as those on the plant illustrated.

Another very beautiful Speedwell is *V. incana*. This has stems and foliage of a charming silvery grey hue, and in June, when producing its spikes of deep purple flowers, is as handsome a plant as

one could wish for. It is good for either a border or a prominent position in the rock garden, and is best increased by division early in the spring.

In addition to repens and rupestris, already mentioned, *V. gentianoides*, with greyish-coloured flowers; *V. prostrata*, with spreading, neat tufts of deep green foliage and deep blue blossoms; *V. saxatilis*, a plant sometimes found wild in Scotland, its blue, striped violet flowers being very attractive; and *V. taurica*, a dense tufty plant with gentian blue blossoms, are all excellent for the rock garden. Most have proved variable under cultivation, and varieties with flowers of colours other than those named can be obtained if required.

Practically all the Speedwells are to be had from any good nursery firm, and as they are by no means expensive, one has no hesitation in putting forth a plea for their extended cultivation. As already indicated, none calls for any special skill on the part of the cultivator, hence they are excellent plants for the novice to secure. Except for the removal of old flower-heads as soon as the blossoms fade, the shrubby kinds do not require pruning, unless an odd branch or two have to be shortened to prevent them encroaching too much on other plants.

F. W. H.

PERGOLAS OF ROSES AND OTHER CLIMBERS.

THE Rose pergola has become such a popular feature of the up-to-date garden that we are inclined to wonder how our fathers got on without it, but it is questionable whether planting a pergola entirely with Roses is the most economical or the best way of utilising such a structure. For three or four weeks during the latter part of June and during July, when the Roses are in full bloom, a Rose-clad pergola is certainly a wonderful sight, and it would be difficult to imagine anything more beautiful, but the season of beauty is soon over, for many of the best kinds bear all their flowers at one time, and, at the outside, are in good condition for three weeks or a month, the remainder of the year being given up to foliage or bare stems. But by clothing a pergola with a mixture of Roses and other climbers it is possible to secure flowers, ornamental fruit or coloured foliage over a considerable portion of the year, although at no particular period may the effect be quite so entrancing as that of a pergola of Roses about the end of June. General interest will, however, compensate for this defect.

The planting of a mixed pergola needs some considerable forethought regarding a suitable mixture of Roses and other plants, and here the dimensions of the structure play an important part, for on a fairly high and moderately wide pergola many more plants can be grown than on one which is cramped for space. Length, of course, must determine height and width to a

certain extent, a long structure calling for greater height and width than a short one. While no hard-and-fast rule can be laid down, a minimum height and width of 8 feet may be allowed for a pergola up to 50 feet long, while 12 feet in height and width would be required for a structure between 50 yards and 100 yards in length.

In arranging plants to provide an effective display over as long a period as possible, it might be argued that the best plan would be to plant a Rose and some other climber in companionship at each pillar, so that one plant would bloom in advance of the other. In theory such an arrangement would be quite correct, but in practice it is not very feasible, for the two plants are likely to require attention at different times of the year, and to prune one may injure the flowering wood of the other; moreover, the branches may become so intertwined that it will be impossible to control one without injuring the other. Therefore it is better to give each arch up to Roses or other plants; but there is no reason why two Roses or two kinds of Clematis should not appear on each arch, one from each pillar, if the maximum variety of plants is desired. Alternate arches of Roses and other climbers may be tried with good results. One point to consider when planting is the provision of really good soil, for the plants can only be expected to give their best when they are treated in a generous manner.

Suitable subjects for clothing pergolas are as follows: Commencing with Roses, we will first consider a few kinds which have a prolonged flowering period. The old Gloire de Dijon is one of the best in this respect, for it blooms well in June and again in August, while blooms may also be found between whiles. William Allen Richardson is another variety with a long flowering period, and although considered to be tender in some gardens, there are many places where it can be grown. Longworth Rambler and Cheshunt Hybrid are two useful red-flowered kinds with a

lengthy time of flowering; and other useful sorts are Ards Pillar, crimson; Climbing Caroline Testout, salmon pink; Climbing Mrs. W. J. Grant, salmon pink; Dawn, rosy pink; and Grüss an Teplitz, red. Among the wichuraiana Roses are many kinds with a long flowering time, particularly those which have Tea Roses for their male parent. Good ones are Alberic Barbier, yellow; Edmond Proust, coppery carmine, Elise Robichon, buff yellow, shaded rose; François Foucard, lemon; and Paul Transon, rosy pink. Most of these are very vigorous and require plenty of room. Good climbing Roses with a short flowering period, but which bloom very profusely, are: Wichuraiana varieties—Delight, bright carmine; Dorothy Perkins, pink; Excelsa, double red; Gardenia, cream; Hiawatha, crimson; Lady Godiva, salmon pink; Minnehaha, pink; and Shower of Gold, golden. All of these bloom in July. Other useful climbing sorts flowering in June and early July are: American Pillar, rose pink; Blush Rambler, blush; Crimson Rambler, crimson; Dawson Rose, pink; Electra, yellow, then cream; Graf Zeppelin, coral red; Hélène, mauve with yellow base; Mrs. F. W. Flight, rose pink; Philadelphia Rambler, crimson; Tea Rambler, pink; The Lion, crimson; and Wallflower, crimson.

Other climbers suitable for pergolas are: Jasminum nudiflorum, a climber of moderate growth which bears its golden blossoms from leafless branches between November and February. Forsythia suspensa—the form with slender, pendent branches should be selected for the purpose; its long, graceful branches are loaded with pretty bell-shaped, yellow blossoms during April. Cydonia japonica, although not strictly a climber, can be trained as such, with effective results, on the pillars and cross-bars of a pergola. Its rich red flowers begin to expand during midwinter, and it is at its best about March or April. It can be used on quite small structures,



A WHITE SPEEDWELL, VERONICA SPICATA ALBA, AT WISLEY.

as it stands pruning well. *Wistaria chinensis* is an excellent pergola plant, and the same may be said of *W. multijuga* and the white variety of each species. The racemes of fragrant mauve or white flowers, as the case may be, never look more pleasing than when hanging from the cross-bars of a pergola. When once the space is well covered with branches, a stunted, spur-like system of growth must be encouraged, the young shoots being repeatedly cut back.

The Clematis family offers a wide choice of subjects. Such species as *C. montana*, with white flowers, and its variety *rubens*, with red blossoms, in May; *C. tangutica*, with yellow flowers during summer; *C. Flammula*, with fragrant white blossoms; and its variety *rubro-marginata*, with red and white blooms during August and September; *C. alpina*, with mauve, pink or white flowers in April and May; and *C. jouiniana*, with white, violet-tinged blossoms in August and September, are all worth considering. Then we have the

reddish purple; Marcel Moser, lavender with carmine violet band; and Nellie Moser, white with a reddish band on each segment of the flower. Jackmanii varieties: Alexandra, violet blue; Earl of Beaconsfield, purple; Gipsy Queen, violet purple; Jackmanii superba, purple; Mme. Grange, crimson violet; Mme. Baron Veillard, lilac rose; Mme. Edouard André, red; magnifica, reddish purple; Snow White, white; and Ville de Lyon, red. *Viticella alba*, white; *rubra*, red; *grandiflora*, red; and the type, purple, are free-flowering kinds of the *Viticella* group.

Among Honeysuckles, good kinds for pergolas are *Lonicera japonica* and varieties *flexuosa* and *halleana*, *L. Periclymenum* and the new *L. tragophylla*. All bloom during summer. *Jasminum officinale* is a strong-growing, summer-flowering climber with fragrant white flowers, and *J. humile* is a yellow-blossomed plant of less vigour which also blooms in summer. The common Passion Flower (*Passiflora carulea*) is suitable for pergolas

able period, but there are numerous other subjects that can be requisitioned. As pergola plants have usually to be severely pruned once a year, such pruning should be done immediately after the close of the flowering season. W. D.

THE SHRUBBY BUCKEYE (ÆSCULUS PARVIFLORA.)

THIS is one of the most distinct and valuable Horse Chestnuts cultivated in our gardens. Its usual habit is that of a large shrub, 7 feet to 10 feet or more in height, and generally exceeding these dimensions in diameter; leaflets mostly in fives; the flowers in long, cylindrical panicles up to some 10 inches long, white, with tinted pink stamens, and red anthers. The inflorescences last for some time in beauty, as the flowers open in succession on the branched panicles. The flowering season is the second half of July and during August, a period when comparatively few trees and shrubs blossom in our pleasure grounds.

The Shrubby Buckeye is usually propagated by division, the bushes, when established, increasing freely by the development of suckers. It is only occasionally that fruits mature in this country. For lawn specimens and groups in the shrubbery border, or on the borderland of the pleasure grounds and woodland, the value of *Æsculus parviflora* cannot be too highly praised. It is worth while trenching the ground previous to planting, and adding some good loam if the soil is poor.

A native of the South-Eastern United States, the Shrubby Buckeye is said to have been first introduced in 1785. A. O.

WATER GARDENING

AS an adjunct to the garden proper, water gardening as we know it to-day is quite a modern idea. Forty or so years ago it was a rarity in any form in gardens large or small, while its introduction into gardens of limited

size is, probably, not yet a couple of decades old. Formerly, the aquatic department of a hardy plant nursery was, doubtless, the least profitable, its neglected condition telling its own tale. To-day, as for some years past, a different story could be told, the attention bestowed upon the plants and the special receptacles for their cultivation affording proof that all is well. In a large degree, doubtless, this change has been brought about by the advent of the new Marliac Water Lilies some years ago, their irresistible beauty fascinating all who saw them. Then, by degrees, water gardening, like rock gardening, crept into the exhibition arena, where, either well done or suggestively, its possibilities, its added beauty and interest, presented to thousands of garden-lovers at first hand, assured it an immediate as well as growing future. Quite naturally, the coming of the water garden made way for waterside gardening also, a combination of the two, as the illustration on the next page so well portrays, often attended



A BEAUTIFUL AND LATE FLOWERING HORSE CHESTNUT, ÆSCULUS PARVIFLORA.

wide range of garden varieties of the florida, patens, lanuginosa, Jackmanii and Viticella types to call upon. These offer a wide range of colour from white to mauve, purple or red, the flowers being large and produced freely over a long period. The florida and patens groups bloom during May and June and require very little pruning. A few good ones are: Belle of Woking, silver grey, double; Duchess of Edinburgh, white, double; Fair Rosamond, blush white; Lady Londesborough, silver grey with reddish bar; Mlle. Toriana, rose, flushed pale purple; Mrs. G. Jackman, satin white with creamy bar; Miss Bateman, white, double; Proteus, purplish rose, double; and Sir Garnet Wolseley, blue with plum red bar. Good varieties of the lanuginosa group are: Alba magna, white; Beauty of Worcester, bluish; Gloire de St. Julien, lavender blue; Grand Duchess, lilac heliotrope; Henryii, creamy white; candida, white; Lord Nevill, blue; La Gaule, white; Louis van Houtte, violet; Mme. van Houtte,

in the warmer parts of the country, and for similar places the white-flowered *Solanum jasminoides* is excellent, for it blooms throughout the greater part of the summer. *Akebia quinata* and *A. lobata* are a pair of vigorous climbers which bear reddish purple flowers in April in advance of the leaves; while *Celastrus articulatus* is remarkable for showy fruits during autumn and early winter. It requires plenty of room. The Vitis are excellent for pergolas, but they have to rely upon foliage as an attraction. A few good ones are *Coignetia*, *Labrusca*, *Thomsonii*, *armata*, *henryana*, *Thunbergii*, *leeoides* and *megalophylla*. *Aristolochia Sipho* is also more remarkable for its large rounded leaves than for its flowers. *Polygonum baldschuanicum* is a very vigorous climber which produces white flowers and fruits with great freedom. It should only be planted, however, where it can have abundance of room. The plants mentioned will be sufficient to enable anyone to furnish a pergola so that it will be of interest for a consider-

with the happiest results. The advantages of the dual style referred to are many and various. In the first place, a new and interesting feature is added to the garden, and not infrequently, also, to a portion where probably nothing but disorder or neglect existed before. If amid suitable environment, even though on a small scale, picture-making effects, like those shown in the illustration, will be readily secured. In addition, not a few plants hitherto excluded from the garden by force of circumstances, or carrying on a wretched existence amid alien conditions, will find their true home, and, while revelling in their new surroundings and affording pleasure, provide that touch of repose so much to be desired in this particular phase of gardening. Hence as much of Nature as is possible should enter into the scheme, to the masking of all that is artificial and obtrusive to the eye.

In a large number of instances the water garden, of necessity, will be a purely artificial thing, albeit it may be the intent of its owner to make it look quite natural. To achieve this end, the operator cannot do better than consult Nature, from whom the best object-lessons are obtainable, free of cost. Take a walk beside a rivulet or streamlet and note its meandering informal outline. Mark the way Nature has garnished it with turf or herbage to the water's edge. Make a little sketch of the scene or carry the picture away in the mind's eye. It is all that is wanted as the basis of a good start.

Where it is desired to grow a few Water Lilies, a depth of 2 feet of water will be found ample for many; frequently less than this suffices. Its form can only be decided by individual circumstances, but whether it be a miniature pool or rivulet, it is essential that it be made watertight. In some districts puddled clay will do quite well. In the main, however, good cement concrete will be found the most reliable, therefore cheapest in the long run. In Nature, lake, pond, or streamlet occupies a depression amid its surroundings. Its artificial

counterpart should, as far as possible, be similarly circumstanced. Where this is so, it is quite easy to garnish the sides and to arrange for a partial flooding or saturating of the slightly raised banks near.

For small water areas *Nymphaea odorata* and its varieties should be grown, though *N. Marliacea carnea*, *N. M. Chromatella* and others succeed well for a time. For the rest, between *Gunnera* and *Bog Pimpernel* there is a great host. Sites devoid of

tree life near may be rendered more natural by planting tall graceful Bamboos, Meadow-sweets, Knotgrass and like things. The Royal Fern (*Osmunda*) is productive of fine effect. In the wettest places, American Swamp Lilies, bog-loving Primulas, Siberian Irises and Cardinal Flower (*Lobelia*) should all find places. Grouping rather than much variety is most to be desired; repetitions should be avoided.

E. H. JENKINS.



WATER LILIES IN A STREAMSIDE GARDEN.

CULTURAL NOTES ON VIOLAS.

THE Violas, which are closely allied to the Pansies, form most delightful plants for any part of the garden, and, as they are perfectly hardy, there is no reason whatever why they should not play an important part in the garden.

There are a vast number of varieties in existence, the colours ranging from pure white to a very dark blue. *Viola gracilis* (deep violet in colour, and *V. g. Snowdrift* (white) produce very small but numerous flowers, and the plants themselves have an exceedingly dwarf habit. These two varieties are very suitable for rockery work. *Viola Maggie Mott* (light mauve), *V. White Swan* (pure white), *V. Mrs. Chichester* (a mixture of white and blue) and *V. Moseley Perfection* (yellow) are four very good varieties worth growing; these have much larger flowers and are more robust growing than *V. gracilis*, and are very suitable for beds, borders and other places.

Practically all the Violas will grow in any soil, but light sandy soil is more essential to their growth, for in that of a heavy nature the roots cannot grow so freely.

Propagation.—There are three ways of increasing a stock of Violas, viz., by seeds, layers and cuttings. The former method cannot be relied on, as seedlings do not always come true; but the last two will be found reliable ways of increasing them. Layers can be obtained by simply pressing the long growths in the soil and leaving them for a few weeks, when they can be severed from the old plants and planted out where required.

When propagating these Violas from cuttings it is advisable to procure the young growths thrown up from the base, as these strike more readily than the old ones. October and November are the best months to take them. When the cuttings are about to be taken, and there are no young shoots at the base, the old ones should be cut back about 1½ inches from the base; then, if the plant is healthy, it will put forth young growths vigorously. When these are from 2 inches to 3 inches in length they can be slipped off as low as possible, and cut square just below a leaf joint, cutting off the leaves with the exception of just a few at the tip. These cuttings when procured should be placed in rows in a cold frame about half filled with equal parts of soil and leaf-mould, with a little silver sand added.

A distance of 3 inches between the rows and 2 inches to 3 inches between the cuttings will be found to be none too much. If these cuttings are looked after during the winter and plenty of air is admitted on mild days, by early spring they should have made nice sturdy plants, which can be planted out where required.

F. J. CLARK.

Dropmore Gardens, Maidenhead, Berks.

A BEAUTIFUL NATIVE ORCHIS.

WHEN writing of native plants for the waterside in *THE GARDEN* dated August 7, I very stupidly omitted to mention the beautiful Marsh Orchis, *O. latifolia*. It would be difficult indeed to find a wild plant more interesting or possessing more charm than this, and owing to its preference for damp, marshy spots it is essentially a plant for the waterside. That its merits have been appreciated by good gardeners is shown by the fact that one more often finds



ORCHIS LATIFOLIA, A BEAUTIFUL NATIVE PLANT WITH PURPLE FLOWERS.

it as a cultivated plant in gardens than as a native in our marshland, though it is by no means uncommon in the wild state. Some idea of its loveliness under cultivation—where, by the way, its flower-spikes are usually much larger than on the wildings—will be gleaned from the accompanying illustration, which represents a colony of this Orchis in the Royal Horticultural Society's gardens at Wisley. The roots were planted a little over three years ago in a damp, peaty spot with a north-west exposure, and the magnificent flower-spikes testify to the success of this treatment. The spikes, when the photograph was taken early in July, were about 18 inches high, the bright purple flowers creating a welcome bit of colour amid the deep green foliage of surrounding

vegetation. It has proved a variable plant under cultivation, but for the waterside in semi-wild places the native plant is best. As most nurserymen have stocks of this Orchis, there is no difficulty in obtaining plants and no excuse for rooting up wild ones for transference to the garden.

THE DOUBLE-FLOWED HEATHER.

It is not generally known that a double-flowered form of the common Ling or Heather (*Calluna vulgaris*) can be obtained from a few sources. It is a very charming little hard-wooded plant of moderately vigorous habit, and can be relied upon to do well where a fair amount of peat or leaf-soil is incorporated with the natural soil, providing the latter is well drained and free from lime. This double-flowered Heather possesses the same habit as the common form, and the flowers are the same colour, but quite double, each forming a tiny, full-centred rosette. It is known to botanists under the name of *Calluna vulgaris flore pleno*. Those who wish to grow a good white Heather can scarcely make a better selection than the one known as *C. v. alba Serlei*. This flowers freely, is quite hardy, and the blossoms are pure white. Another variety with good white flowers is *alba tomentosa*, a rather tall-growing, partly erect plant of distinct habit. An interesting form of the common Heather, principally on account of its foliage, is *cuprea*. This, as its name implies, has foliage of a bronzy copper tint, and makes a welcome change where hardy Heaths and Ling are grown on anything like an extensive scale.

THE AUSTRALIAN BLUE-BELL CREEPER.

ALTHOUGH the beautiful shrub known under the above popular name cannot be regarded as entirely hardy in this country, it is more so than is generally supposed, and in many localities in the Southern and Western Counties it can be induced to thrive if given the protection of a wall or close-boarded fence. Blue-flowered shrubs in the outdoor garden are by no means plentiful; hence any trouble that is taken to induce this shrub to flower well is fully repaid. Under the botanical name of *Sollya heterophylla* it has been known in this country for some years, but its common name adequately describes the character of its flowers, which resemble closely, in general outline and delicate poise, the common Harebell of our fields and hedgerows. They are, however, of a deeper shade of sky blue, and a well-grown plant in full blossom is a sight worth going a long way to see, even during a hot July day, this being the month in which it flowers. Owing to its semi-rambling nature, this shrub is well adapted for training on walls, and, where possible, a southern or western aspect should be chosen. The most suitable soil is a mixture of good loam and peat, and thorough drainage is essential.

H.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Strawberries in Pots.—Should the weather continue wet for a long spell, the pots must be placed on their sides to prevent the soil becoming too wet. Give the plants plenty of room, so that the crowns may become thoroughly matured by the autumn. Remove all side growths and runners. At the same time turn the pots to prevent the roots from growing through the drainage holes. The earliest-potted plants will now be in need of a little stimulant. As a preventive against mildew and red spider, the foliage should be syringed with soft soapy water and sulphur.

Tomatoes.—Plants which are standing outdoors must now be placed under glass. If they have set three or four trusses of fruits, the leading growth should be stopped. At this stage a top-dressing of some rich soil will be necessary to assist the fruits to mature. Some of the largest leaves may be removed to expose the fruits to the light. The winter-fruiting plants should now be ready for their final pots, or they may be planted out if convenient houses are available. This latter method is the most satisfactory, as the plants will continue to fruit for a much longer period than when grown in pots. Fumigate occasionally to keep them free from white fly.

Plants Under Glass.

Chrysanthemums.—The most forward of the large-flowered kinds must now be placed indoors, as too much moisture will cause decay of the petals. If they are not wanted early, a house with a northern aspect will suit them best. Shelter will soon be needed for the main batch of plants, and this should be prepared so that there shall be little delay should frost be imminent. The late varieties must be left outdoors as long as possible, but a temporary protection should be ready for emergencies.

Climbing Roses.—The plants which are required for early flowering must be given every encouragement to ripen their growth. All growth which is not wanted should be cut out regularly, so that the flowering wood may be well exposed to the light. Give the roots plenty of stimulants, and, if not already done, top-dress them with horse or cow manure.

Gloriosa superba.—This beautiful climber will soon be past its best, and the plants must then be induced to rest. Water ought to be given less frequently, and when the foliage has died down, the pots may be placed in a dry situation for the winter.

The Flower Garden.

Fuchsias.—These must be liberally treated in the matter of watering and feeding, or they will fail to flower till the end of the season. Cuttings may be inserted now for next season's stock. The variety Mrs. Rundell is excellent for vases, and old plants of this may be used effectively if plunged in grass in suitable places. The cuttings need a little warmth from a hot-bed to help them to root freely.

Standard Fuchsias.—These are most effective when employed with suitable subjects. We have used the variety Mrs. Rundell this season with Begonia Major Hope and a groundwork of Alyssum Snow Carpet, the whole making a very striking bed. For standards the most promising cuttings must be selected and grown on gently all through the winter.

General Work.—Persevere with the work of striking cuttings of the various bedding plants. Calceolarias, Veronica Andersonii, Violas, Pansies, Lavender, Mesembryanthemums, Phloxes and Pentstemons must all be inserted now. Cold frames will be suitable to protect all these plants during the winter. It is a waste of time to grow Antirrhinums from cuttings, as seedlings may be relied upon for almost any purpose.

Sweet Peas.—The early batches of Sweet Peas may now be cleared from the ground. Any seed which it is intended to save must be put in a dry place till it is thoroughly ripe. The ground must be prepared at once for autumn sowing.

The Hardy Fruit Garden.

Vines.—The season has been very unfavourable for the maturing of outdoor Grapes, and unless all the minor cultural details are regularly attended to, the fruit will fail to ripen. Mildew has been very prevalent, owing, no doubt, to the continued spell of dull, wet weather. Keep all growths regularly pinched, so that all the light possible may reach the fruits.

Strawberries.—The autumn-fruiting kinds will need constant attention to keep them fruiting till the end of the season. It may be necessary to place a little fresh, clean straw under the fruits. Keep a sharp look-out for slugs, which are always abundant at this time of the year, and remove runners and weeds.

Figs.—The fruits must be protected from birds and insects. Fish-netting should be placed over the trees to keep out birds, and to trap wasps and flies jars of sweetened beer may be hung about the trees. Trees growing against walls need plenty of water.

The Kitchen Garden.

French Beans.—In the event of dull, wet weather, the plants in cold pits must be covered with lights, or the flowers will damp off. If the plants are too crowded, the foliage may with advantage be thinned.

Onions.—The main crop of Onions may now be lifted. Let them remain on the ground till they are thoroughly dry before placing them in the store. For storing for the winter, select only the bulbs which give promise of keeping well. The remainder may be used first.

Winter Spinach.—To promote a healthy growth, well-seasoned soot may be dusted between the plants previous to hoeing. Thin the plants to 6 inches apart when large enough.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

The Flower Garden.

Pentstemons.—The chief batch of cuttings should now be put in. As some varieties do not produce freely the suitable growths for propagation, pinching is necessary to obtain sufficient stock. By propagating now, the plants grow sufficiently during the autumn to allow of them being pinched; this ensures a much greater number of flowering growths the following season. It is possible, however, to strike Pentstemons until the short winter days.

Antirrhinums.—More vigorous plants are undoubtedly obtained from seedlings, but when a variety has to be produced true to colour, cuttings can be put in cold frames similarly to the Pentstemons. Shade and keep the frames closed until the cuttings have rooted; then admit air gradually.

Early Flowering Chrysanthemums.—Many varieties being now in full flower, it is sometimes most disappointing to have them ruined by a single night's frost, especially when there is sometimes no return of it for several weeks. If wires and stakes are put up neatly, they are not unsightly; these prevent the plants becoming broken when they are being covered to protect them from frost.

Bulbs.—The planting season now being at hand, orders should be placed to ensure early delivery. Many of the old bulbs which were lifted will again do service, but a finer display is ensured by adding new bulbs.

Plants Under Glass.

Begonia Gloire de Lorraine.—More staking and tying becomes necessary as the plants develop their growths. Green raffia, not being so conspicuous as other tying materials, should be used when tying. Fumigate at frequent intervals to keep down insect life, and continue to remove flower-buds as they appear, unless the plants are required for use during October. Now that the pots are getting full of roots, stimulants may be given with more freedom, taking care not to injure or disfigure the foliage when applying them.

The plants will require shading for a few weeks longer.

Freeseias should be removed to a shelf near the glass, or placed in a shallow frame, as soon as growth on all the bulbs has started. This will encourage strong, sturdy growths, eventually producing better flowers. These plants to flower well must be kept cool and watered with care. Later batches of bulbs should be potted up to ensure a longer succession of flowers.

Show Pelargoniums.—If these plants were pruned after flowering and rested, they will now be ready for repotting. Shake off most of the old soil and repot into similar-sized pots, using a good compost of loam, leaf-mould and sand. The plants should be syringed for a time to encourage them to break freely.

Chrysanthemums now forming buds should be frequently top-dressed as soon as it is seen the previous application has been taken possession of by the roots. Only a very light dressing of soil ought to be given at one time, but it should be rich in plant food. Any growths appearing at the base of the plants should be removed when disbudding, as they absorb energy from the plants.

The Hardy Fruit Garden.

Strawberries.—The completion of planting young plants should be hastened, to allow them to become well established before winter arrives. Runners must be kept closely picked off and the hoe used freely. If the older plants have had all the runners removed, the ground between the plants could be lightly forked over, taking care not in any way to injure the roots.

Peaches.—Should the young growths not have been tied in by this date, it will be necessary to tie any growths aside which may be shading the ripening fruit. To protect from birds, it will be necessary to cover the trees with nets. Water the borders well if there is any suspicion of dryness at the roots.

Fruit Under Glass.

Melons.—With the shortening days and reduced sun power, more artificial heat is required for the late crops. Especially is this the case during any wet period. Try to maintain a night temperature of from 65° to 70°, and be more sparing in the application of water, both at the roots and when damping down. When saving seed from any special Melon, great care is necessary that the flowers are fertilised by pollen taken from the same variety.

Pot Figs.—If the plants have finished ripening their fruit, the maturing of the wood will now be greatly helped if they are removed to a sunny position outdoors. If mealy bug is in existence, go over the trees with methylated spirit, applying it with a small brush. Water should now be applied with discretion, and as soon as severe frosts threaten, the plants must be removed indoors.

The Kitchen Garden.

Cauliflower.—Make a good sowing of Early London or Early Erfurt Cauliflower for use next June and July. Do not sow on a very rich piece of ground. As soon as large enough to handle, prick out the seedlings in cold frames, and do not coddle the plants. Slugs are likely to be troublesome, so that a dusting of soot will be necessary to protect the plants.

Beetroot.—The earliest-sown crop should now be lifted. After being pulled up, give the tops a slight twist to remove the leaves. Do not cut them with a knife, or the roots will be ruined.

Carrots.—The late-sown crops should be thinned slightly to allow larger roots to form on the remaining plants. Earlier crops could be lifted and stored, in order to clear the ground.

Turnips, too, which were lately sown must be thinned, and the hoe used freely to encourage a quick growth.

Endive.—When the plants get large enough to handle, prick out in cold frames where they can be protected during severe frost. A distance of 7 inches or 8 inches apart will be sufficient to leave between the plants, and dust with soot to protect them from slugs.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

TRIALS OF PEAS AND PHLOXES AT WISLEY.

THE Council of the Royal Horticultural Society have approved the following recommendations of the fruit and vegetable committee for awards to early Peas, and of the floral committee for awards to herbaceous Phloxes, tried this season at the Society's Gardens at Wisley. The names in parentheses indicate the present senders.

PEAS.

PREVIOUS AWARDS CONFIRMED.

First-class Certificate, given in 1872 to William I. (Messrs. Sutton, Barr).

Award of Merit, given in 1901 to Sutton's Harbinger (Messrs. Sutton); 1908 to Dawn (Messrs. Carter); 1901 to Duchess of York (Messrs. Sutton); 1898 to Thomas Laxton (Messrs. Barr).

NEW AWARDS.

Award of Merit.—A 1 (Messrs. Sutton and Sons); First of the Season (Messrs. Cooper Taber); World's Record (Messrs. Sutton); Giant Express (Messrs. Carter).

Highly Commended.—American Wonder (Messrs. Sutton); Dobbie's Express (Messrs. Dobbie and Co.); The Pilot, Hawlmark Selection (Messrs. Alex. Dickson); Kelvedon Wonder (Messrs. Hurst); Chantecler (Messrs. Hurst); Model (Messrs. Hurst); May Queen (Messrs. Sutton); Early Queen (Messrs. Barr and Sons); Bountiful (Messrs. Sutton); British Lion (Messrs. Alex. Dickson); Sixty Days (Messrs. Carter and Co.).

HERBACEOUS PHLOXES.

PREVIOUS AWARDS CONFIRMED.

Award of Merit, given in 1897 to Coquelicot (Messrs. Wells, Barr, Box, Forbes); 1910 to Elizabeth Campbell (Messrs. Pfitzer, Wells, Barr, Box, Forbes, Ruys, Jones); 1910 to Frau Antonin Buchner (Messrs. Wells, Barr, Box, Ruys, Forbes, Jones); 1907 to George A. Ströhlein (Messrs. Barr, Box, Forbes, Jones); 1899 to Le Mahdi (Messrs. Wells, Barr, Box, Jones); 1897 to Miss Pemberton (Messrs. Forbes); 1906 to Tapis Blanc (Messrs. Aldersey, Barr, Box, Forbes, Jones).

Highly Commended, given in 1892 to Henri Mürger (Messrs. Barr); 1908 to Jules Cambon (Messrs. Barr, Box, Jones); 1892 to Paul Bert (Messrs. Barr, Forbes); 1892 to William Robinson (Messrs. Barr).

Commended, given in 1892 to John Forbes (Messrs. Forbes); 1892 to Pantheon (Messrs. Barr, Box).

NEW AWARDS.

Award of Merit.—Antonin Mercie (Messrs. Wells, Barr, Box, Jones); Aubrey Alder (Messrs. Wells); Esperance (Messrs. Wells); Europe (Messrs. Pfitzer, Box, Ruys, Jones); Lady Grisel (Messrs. Barr); La Neige (Messrs. Forbes, Box); Météore (Messrs. Barr, Box, Jones); Selma (Messrs. Wells, Barr, Box, Ruys, Jones).

Highly Commended.—Aegir (Messrs. Jones); Arthur Ranc (Messrs. Wells, Box, Forbes, Jones); Aurora (Messrs. Box, Forbes, Jones); Baron von Dedem (Messrs. Wells, Box, Ruys, Forbes, Jones); Braga (Messrs. Box, Jones); Derviche (Messrs. Wells, Barr); Distinction (Messrs. Wells, Jones); Dr. Königshofer (Messrs. Pfitzer, Box, Ruys, Jones); Fort de France (Messrs. Wells, Barr, Box); Frau Grimm (Messrs. Pfitzer); General van Heutsz (Messrs. Wells, Barr, Box, Ruys, Forbes, Jones); Goliath (Messrs. Barr, Box, Ruys, Jones); Helmuth

Hirth (Messrs. Pfitzer); J. E. Suckling (Messrs. Wells); Jules Sandeau (Messrs. Box, Ruys); Lady Satanelle (Messrs. Wells, Barr); Lady Tate (Messrs. Forbes); Mrs. E. H. Jenkins (Messrs. Box, Forbes); Pharaon (Messrs. Barr, Box); Rose Queen (Messrs. Wells, Jones); Seduction (Messrs. Forbes); Sergeant Lovy (Messrs. Barr, Forbes); Sheriff Ivory (Messrs. Wells, Box); Viktor Stoessel (Messrs. Pfitzer); Widar (Messrs. Box, Jones).

Commended.—Champignol (Messrs. Barr); Daniel Leseuer (Messrs. Wells, Box, Forbes); Flora Hornung (Messrs. Wells, Box, Forbes); Josephine Gerbaux (Messrs. Box, Jones); L'Aiglon (Messrs. Barr, Jones); Marvel (Messrs. Forbes); Oculata (Messrs. Jones); Reichsgraf von Hochberg (Messrs. Barr, Box, Ruys, Forbes); William Scott (Messrs. Forbes).

W. WILKS, Secretary.

THE ROME CONVENTION AND THE HORTICULTURAL INDUSTRY.

AT a Conference held in Rome in 1914, representatives of this country signed a convention setting forth restrictions on the trade in plants that they were prepared to recommend their Governments to carry out. The restrictions, if agreed to, will very seriously affect the horticultural trade of this country. They have, however, not yet been carried out, nor has this country assented to them, but sooner or later the subject will come up again, and it behoves the horticultural industry in this country to be ready for that time.

If this country assents to this convention, how will it affect the trade? First, all nurseries and establishments supplying plants, seeds, &c., will be registered, licensed and inspected. Secondly, all nurseries will have to notify at once the appearance of certain scheduled diseases. Thirdly, they will have to adopt standard methods of dealing with certain diseases, spraying, fumigating, tipping or the like. Fourthly, their methods of packing and transport will be inspected and controlled. Fifthly, they will have to obtain, for each consignment of living plants destined for sale or for export, a certificate from an inspector as to its freedom from certain diseases, or as to the nursery itself being free from certain diseases.

This last will, perhaps, be the most troublesome, as it involves the inspection of each consignment by an inspector before it is packed and after it is packed. The consignment must be packed according to the instructions, and the certificate specifying its contents must go with it.

A further clause in the convention lays down that plants cannot be imported from any country that either does not adhere to the convention or that has no service of officials for giving certificates, so that all importation of any plant at all, say, from China or Tibet, would appear to be absolutely stopped.

There is no question but that this procedure is going to be troublesome. Is it worth it? If this country does not adhere to the convention, what will happen? Its export trade in plants with adhering countries will cease to a large extent, if not wholly. It will be unable to send any living plants into any of the twenty-five countries that have joined the convention. It will be able to send plants to the United States,

but only by carrying out a similar procedure in order to satisfy their requirements. Whether to adhere or not is evidently a very difficult question, and a joint committee, formed under the auspices of the Royal Horticultural Society, has been engaged on this problem. Clearly there are many things to be taken into account. What diseases are there which we do not desire to be admitted into this country? Where do they come from and how? Have we suffered in the past from introduced diseases? Will the convention's restrictions keep diseases out, or will they simply restrict trade and be of no use?

To answer these questions we must have information, and we are using this interval to get that information, so that when the time arrives for discussion the trade can take up a definite position and back it with facts. We have collected information about the diseases and pests which have been carried from country to country in the past and what carried them. We have information about the restrictions on trade at present in force. We have information about the diseases which do not exist in this country and which we do not want admitted; but we have no information as to the trade itself in this country, and this is a necessary part of the enquiry.

Particularly we require this: What is the position of the industry as regards imports and exports respectively? What are these, where do they go to, where do they come from? Are the imports of new wild plants from, say, China, more important than the imports of cultivated new varieties from Europe? If a clause in the convention concerns, let us say, the importation of Japanese Maples and deciduous nursery stock from Japan, are we affected or not?

There are countless points of this sort which can only be answered by a knowledge of what the imports and exports are, what kinds of plants, of what value and amount, where from and where to, and whether the imported plants are from the forest or jungle or from foreign nurseries.

In the hope of getting this information the Royal Horticultural Society has addressed a letter to every firm dealing in live plants. Attached are forms so prepared that each firm may give, with the least trouble, the information that the committee wants, and the committee very strongly urges all members of the trade to give the information asked for. Sooner or later a decision will have to be taken.

The Board of Agriculture has intimated that it will not adhere to the convention if it be against the interests of the trade, and it is extremely important that the trade should have the necessary information on which to judge whether to recommend adherence to the convention, whether to stand aside, or whether to ask the Government to seek to modify it.

It is impossible in a single article to make clear what the effect of the convention will be, but I propose in the next to explain the regulations already adopted in France in anticipation of this convention being adopted. Whether this country adheres or not, the effect will be far-reaching, and we hope the trade will give the committee the help it needs by filling up the forms and returning them when completed to the Secretary, Royal Horticultural Society. The information will be treated as strictly confidential, and the only use made of it will be to compile tables of the total imports and exports of living plants, with the countries of origin or destination.

H. M. LEFROY.

BOOKS.

The Principles of Agriculture Through the School and Home Garden.*—The author is Supervisor of Agricultural Nature Study and Director of Rural School Extension, Chico State Normal School, California (title-page). His conception of the place of the school is a high one, but probably a sound one, so far as we are able to follow it in the preface, and we fully agree with his hope that teachers will "use the garden, not for the sake of the garden itself, but that it may lead the children into the life of the State."

The book itself sets out to teach principles, not processes, of agriculture, and one finds many suggestions for experiments demonstrating principles; but at the same time a large part of the book gives directions concerning common garden processes, many of which are illustrated. Still, the directions are often not sufficiently explicit to be really useful to the beginner. Little details which make all the difference between neat and effective and slovenly and indifferent work are often omitted. Not only is the garden considered, but the rural home, too, comes in for its share of attention. The weather, the cow, poultry and pigeon raising, public health, and the mosquito and house fly all have chapters devoted to them. The older children in primary schools would undoubtedly benefit greatly by studying the book and reading it with a sympathetic teacher, also by making the experiments it suggests, and carefully carrying out the instructions it gives for growing plants, under efficient supervision. Teachers themselves are likely to profit, too, by the perusal of the book, for it is in many places very suggestive and helpful, not only for the persons for whom it is immediately intended—the youngsters in American rural schools—but for all teachers of young people everywhere.

A LETTER FROM THE ROYAL HORTICULTURAL SOCIETY.

A YEAR ago the President and Council of the Royal Horticultural Society expressed to the Fellows their opinion that in troublous times, such as we are at present passing through, counsels of perfection cannot always be carried into effect. At the same time it is none the less the duty of those who are placed in a responsible position, and who can exercise any influence in the country, to give the best advice in their power, leaving it to the judgment of individuals to act upon it as far as they are able and see fit.

The letter further went on to say that it was already evident that not only actual gardeners, but all who in any way were dependent for a living upon horticulture will be certain to suffer seriously from the indirect effects of the war.

It is known how loyally Fellows of the society responded to this appeal, and nurserymen and seedsmen throughout the country have been deeply grateful for the effort Fellows have made to maintain, as far as they reasonably could, the upkeep of their gardens, adjusted to the times.

* "The Principles of Agriculture Through the School and Home Garden," by C. A. Stebbins, M.S. 8vo, xxviii + 380 pp. New York: The Macmillan Company, 1913; price 4s. 6d. net.

There has recently appeared in the public Press correspondence urging the entire cessation of all garden expenditure, and though the letters have more pointedly aimed at public parks and gardens, such expressions are apt to be dangerous, inasmuch as the gardening public at large may be likely to interpret and apply them to themselves individually. Indeed, that this is happening is evident from correspondence recently received on the subject from prominent and well-known firms, who tell us that their trade is very seriously depressed, and who point out that an entire cessation of trade means not only temporary financial loss, but the irretrievable sacrifice of many years of labour spent in introducing new and improving older fruits and vegetables for our use, and flowers, trees and shrubs for our solace and enjoyment. They rightly feel that, as they have catered for our highest happiness in times past, it is hardly right that they should now be brought to a position in which they can no longer even retain their employes' services. Most of their younger men have enlisted, and they ask, not for the usual trade, but for just sufficient support to keep them going and to meet current expenses which cannot be suspended.

The President and Council feel that in drawing the attention of Fellows to this trade aspect of the question they are but again advising that medium policy which, in the long run, is always the wisest, and Fellows are urged not to forget this when framing their economies.

W. WILKS, Secretary.

EARLY PLANTING OF BULBS.

FOR many years various writers have urged the necessity of planting and potting certain bulbs as early as possible. The advice was quite sound, but, unfortunately, many amateurs have gone from one extreme to another, for while in the past they often neglected to place their orders until after the proper time for planting had gone by, they now demand from the poor harassed grower or merchant delivery of bulbs before it is possible to despatch them. I feel sure that no one who is not conversant with the work of growing, cleaning and sorting large stocks of bulbs can have any idea of the time which must elapse between the lifting of the bulbs and getting them ready to send out. Again, supposing a grower has managed to get all his own stocks ready for despatch in good time—say, the third week in August—he will certainly be kept waiting by other growers who have not been able to get through their work so promptly. For it must not be supposed that the cleverest growers with the best of soil are able to grow every variety (even of one class of bulb) to perfection. He must, if he aims at supplying the best of everything, purchase from others all that he cannot grow to the best advantage. As an illustration, though growing a very large collection of Daffodils, I find it necessary to buy from some fifteen other growers in England, Holland and the Channel Islands, in order to have the best bulbs of each variety.

It will thus be seen that all bulb merchants are more or less dependent upon others, and although their own stocks may be ready in good time, some of the growers with whom they deal

are sure to be late and thus keep them back. Customers eager to plant early often say, "Never mind about the bulbs being dried or cleaned; send them as they are." Have these ardent ones ever considered the enormous amount of extra time it takes to hunt out even a small number of bulbs from some hundreds or thousands of trays before the stocks have been cleaned, sorted and properly arranged for despatch work? If they have not, I would say that it may take quite four times as long to execute an order thus prematurely as it would under proper conditions. What is difficult and hindering in normal seasons is this year simply impossible, for what with the great shortage of labour owing to the war, and the awful weather experienced during the lifting and harvesting time, the preparation of bulbs for sale has unavoidably been delayed later than usual.

I would therefore beg of all who are impatiently awaiting the arrival of their bulbs to take into consideration the difficulties the poor bulb grower or merchant has to contend with, especially in the present troublous times, and to exercise as much patience and forbearance as lie in their power.

ONE OF THE HARASSED GROWERS.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

CAMPANULA ARVATICA (C. H. S., Alderley Edge).—This Spanish species is quite distinct from the Scotch-raised hybrid, *C. haylodgensis*, in many ways, though more particularly colour, habit, flower production—solitary in *arvatica* and several on a stem in *haylodgensis*—and form of flower and leaf. The nearest approach to *C. arvatica* is *C. waldsteiniana*, and while in flower, form, colour and general effect it might well be described as a glorified form of it, the two are widely distinct in their leaf characteristics and in other ways. Had you sent a small flowering example of what you have as *C. haylodgensis*, we could have told you whether you possessed the true plant or not. You might probably like to do this even now and so clear the matter up.

TREES AND SHRUBS.

SHRUBS FOR ISLAND BED (A. W. R.).—The following plants are likely to give satisfactory results in your island bed. If you prefer Laburnums to other trees, plant Laburnum Watereri; but if you do not mind odd trees; use Laburnum Watereri, Prunus serrulata James H. Veitch and P. Avium flore pleno. Large-growing Lilacs such as Marie Legraye (white), Charles X. (reddish lilac) and Souvenir de Louis Späth (dark red) will do very well towards the centre, and further forward you might use Berberis stenophylla (orange), B. Darwinii (orange), Ribes sanguineum splendens (red), Spiraea arguta (white), Diervilla Abel Carrière (red), D. Eva Rathke (red), Azaleas in variety, Viburnum tomentosum plicatum (white), Cytisus scoparius andeanus (gold and brown), Spiraea japonica Anthony Waterer (red, dwarf), Erica mediterranea hybrida (reddish, dwarf), Daphne Mezereum (red) and Hamamelis mollis (yellow). Any Rhododendrons you may wish to use could be intermixed. With such a bed it would probably be advisable to include a larger number of species, rather than form large groups of a few kinds, as the interest could be spread over a longer period.

SPECIMEN FOR IDENTIFICATION (Y. E. R. P.).—The specimen sent for identification is *Thuya plicata*, sometimes called *T. gigantea* and *T. Lobbi*. Plants 8 feet high will be difficult to transplant, and the work can only be done successfully by exercising great care. Much depends upon the character of the soil, for if it is moderately firm it will adhere to the roots much better than if it is very light; and a great aid to success is to keep a considerable amount of soil attached to the roots. The work may be attempted during late September or early October. Dig round the plants at a distance of 3 feet from the stems, and then fork the soil away from the ball until roots are found. Bind the soil round with a piece of canvas, then undermine half the ball, roll a piece of canvas and pass it under the ball, tilt the plant over and draw the roll of canvas through. Lift the plant by means of the canvas and carry it to its new home. If the ball seems loose, leave the canvas beneath, unwrap the sides, and fill the soil in carefully. Water well, and stake to keep the plant from being blown about. If you find that the soil cannot be kept to the roots of the first plant, it would be inadvisable to attempt to move the others. In moving the plant keep it as upright as possible.

MISCELLANEOUS.

SOOT FOR SLUGS (J. Gibson).—This is a very good article to dress your soil with, but we should advise applying it in spring. Give the soil a good dressing of lime in October. That known as slaked lime is best. About six ounces to a square yard would be a good dressing. The soot can be dusted on the ground until the latter is quite black, and you can then fork it lightly in.

NAMES OF PLANTS.—S. Brown.—*Phormium tenax* vetchianum.—A. E. S.—*Pyrus Aria* (White Beam).—Boris.—*Arenaria peploides* (Sea Purslane).—Thomas H. Horrell.—A. *Geranium pratense* flore pleno; B. *Thymus baccata* (Yew); C. *Juniperus chinensis*.

NAMES OF FRUIT.—T. W. Hunt.—The Apple is White Astrachan, and this variety and some of the Codlins will root in the manner you describe.—R. M. E. Y.—1, Williams' Favourite; 2, Lemon Pippin; 3, Red Ingestre.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

The fortnightly meeting held on August 31 was a small one, the outstanding feature being a unique collection of shrubs from Elstree. *Montbretias* from Norfolk and a collection of fruit from Welwyn were other items of importance in a rather spare gathering.

FLORAL COMMITTEE.

Present: H. B. May, Esq. (chairman), and Messrs. J. Green, G. Harrow, G. Reuthe, J. W. Moorman, J. F. McLeod, W. Howe, J. Jennings, W. H. Page, C. Dixon, H. J. Jones, C. E. Pearson, C. E. Shea, J. T. Bennett-Poë, W. P. Thomson, E. H. Jenkins, T. Stevenson, A. Turner and James Hudson.

The outstanding feature of this meeting was the unique collection of new shrubs which occupied the whole of the northern side of the hall, and which came from the equally unique collection of the Hon. Vicary Gibbs, Elstree, Herts (gardener, Mr. E. Beckett). Without doubt it was the finest thing of the kind yet seen at one of these exhibitions, and while rich in variety was equally so in novelties as yet practically unknown. Some idea of the extent of the collection may be gathered from the fact that nearly 300 species were included in it, and in the majority of instances in specimen form, giving a good idea of their value. Not many things were in flower, yet, despite this, their ornamental character and importance could not be gainsaid. From so comprehensive a collection it is only possible to give a few notable kinds, and of these we select at a glance *Cunninghamia lanceolata*, an *Araucaria*-like subject of distinction. Others of note included *Cotoneaster horizontalis pur-pusilla*, which forms a prostrate bush covered with red berries, suited to bold rockwork. *Lonicera nitida*, various species of *Jasminum*, *Xanthoxylon* sp., unnamed; *Cydonia Mallardi*, full of big green fruits; *Potentilla Veitchii*, *Rosa sericea*, *Vitis Henryii*, *Philostegia viburnoides*, *Berberis Wilsonae*, *B. aggregata*, *Viburnum cinnamomifolium*, very distinct; *Ilex Perny* and *Cotoneaster obscura* were among important things. Of bolder form were *Ailantus vilmosiniana*, *Actinidia chinensis* and *Liriodendron chinense*. An admirable collection, for which a gold medal was deservedly awarded.

Messrs. J. Peed and Son, West Norwood, S.E., displayed a remarkable table of *Streptocarpus*, an excellent strain, in which there were rose, purple, violet, pink, pure white and other shades freely staged in groups. Some mottled or variegated varieties were very charming.

Messrs. H. B. May and Sons, Edmonton, displayed a table of *Bouvardia* and *Ferns*, the former including *Priory Beauty* (pink), *Hogarth fl. pl.* (scarlet), *President Cleveland* (brilliant scarlet), *elephas* and *Princess of Wales* (pale pink). *Polypodium aureum* var. *mandarinum*, *P. glaucum* var. *Mayi cristatum*, with *Nephrolepis* in variety and choice *Palms*, contributed to an attractive and interesting group.

Mr. G. Reuthe, Keston, Kent, had a most interesting lot of hardy plants, of which *Crinum* in variety, *Eucryphia pinnatifida*, *Buddleia* of sorts, *Cyclamen hederifolium* album, *Lilium Henryii*, *Conandron ramondoides*, *Parnassias*, *Liatris pycnostachya*, *L. spicata*, *Senecio*

pulcher and *Phygelius capensis* were among the most important. *Diantha cærulea* is a new Chinese plant with violet-coloured, cup-formed blossoms. It is a charming plant. *Lapagerias* from the open were very fine.

The Rev. J. H. Pemberton, Havering-atte-Bower, Romford, showed some charming roses, the best of which were *Clytemnestra*, *Danæ* (creamy yellow), *Queen Alexandra* (a lovely single), *Moonlight* (white), and *Clarissa* (yellow and cream). All save *Queen Alexandra* are of the *Cluster* and *Perpetual-flowering* sorts. Lady Pirrie, Hugh Dickson and General Macarthur were well shown.

Mr. W. Wells, jun., Merstham, showed a nice lot of *Delphiniums* in the cut state, chiefly the result of secondary spikes. Many popular varieties, as *Queen Wilhelmina*, *Mrs. Creighton*, *Emily*, *La France*, *The Alake*, *Rev. E. Lascelles* and *Merstham Glory* (fine light blue) were all well shown.

The Misses Hopkins, Shepperton-on-Thames, displayed a small collection of alpinæ, of which *Sempervivum arachnoideum*, *Sedum pulchellum*, *Lobelia*, hardy *Heaths* and *Tuicium* were a few.

Mr. G. W. Miller, Wisbech, showed an interesting lot of herbaceous plants in the cut state. *Pyrethrums*, *Tristomas*, *Delphiniums*, the newer *Astilbes*, *Montbretia* Star of the East, *Eucomis punctata*, *Heucheras*, *Gladiolus* princeps and others were all well shown. *Apple Red Victoria*, *Late Gooseberry Omega*, and the *Strawberry-Raspberry* were included in the group.

S. Morris, Esq., Earlham Hall, Norwich (gardener, Mr. G. Henley), staged an excellent table of *Montbretias* in many beautiful varieties. *Queen Elizabeth*, *Queen Anne* (light orange), *Westwick* (dark orange with ring of deeper orange), *Pageant* (clear orange) and *Queen Adelaide* (very dark orange) were among the best.

Messrs. J. Cheal and Son, Crawley, exhibited the *Star Dahlias* very finely: *White Star*, *Crawley Star* (cerise) and *Yellow Star* were among the more important. Single *Dahlias* and *Cactus* varieties in many forms were all well staged. F. W. Fellowes (orange) and Mary Purrier (crimson) were very fine. The exhibit also included a variety of *Pompon* and some *Collarette* varieties. Cut shrubs were also a feature.

ORCHID COMMITTEE.

Present: J. Gurney Fowler, Esq. (chairman), Sir Harry J. Veitch, Sir Jeremiah Colman, and Messrs. J. O'Brien, R. A. Rolfe, Pantia Ralli, T. Armstrong, A. McBean, Walter Cobb; W. H. Hatcher, C. H. Curtis, J. E. Shill, W. H. White, S. W. Flory, W. Bolton and Gurney Wilson.

Messrs. Charlesworth and Co., Hayward's Heath, showed *Odontoglossum wilckeanum*; *Vanda cærulea*, *Cattleya gaskelliana* alba, *C. dowiana* aurea, *Sophrocattleya* *Lacina* (very deep coloured) and *Odontodia* Red Cross. *Odontoglossum Aireworth* and *Lelia Bella* were very charming.

Messrs. Hassall and Co., Southgate, N., showed a few nice things. *Cattleya Sybil*, C. Lord Rothschild alba (a lovely combination of white, gold and purple, with heavily fringed lip) and *C. Adula* (rosy salmon and purple lip) were included.

Mr. R. G. Thwaites, Streatham Hill, showed plants of *Odontodia Vuylstekeae*, *O. chessingtonensis*, *O. devosiana* (a richly coloured, well-branched form), together with choice *Cattleyas*.

Messrs. Flory and Black, Slough, showed *Brassia* *Cattleya* *Miquel* and *B.-C. André Maron*, two very fine and imposing varieties.

FRUIT AND VEGETABLE COMMITTEE.

Present: J. Cheal, Esq. (chairman), and Messrs. W. Bates, J. Willard, E. Beckett, W. Pope, H. Markham, A. R. Allan, H. J. Wright, A. Bullock, A. W. Metcalfe, P. C. M. Veitch, E. A. Bunyard, Owen Thomas and W. Poupert.

Messrs. Sutton and Sons, Reading, had an extraordinary collection of *Runner Beans*, some thirty or so varieties being staged. Sutton's Best of All, with 16-inch long pods, formed a grand centre-piece, while Sutton's A 1, Sutton's Scarlet, Ne Plus Ultra, Hackwood Park, Sutton's Prizewinner and Veitch's Scarlet were of exceptional merit. There were many varieties of ornamental value, while a further series showed the development of the *Runner Bean* through many years.

Messrs. S. Spooner and Sons, Hounslow, showed a capital collection of *Apples*, *James Grieve*, *Cardinal*, *Domino*, *Red Quarrenden*, *Rougemont*, *Red Hawthornden*, *Lady Sudeley* (very rich in colour), *Stirling Castle*, *Williams' Favourite*, *Duchess' Favourite* and *Baron Wolsley* being noted among many sorts. *Blackberries*, *Strawberry-Raspberry* and other fruits were shown.

Baskets of *Tomato Peachblow* came from Mr. F. Herbert Chapman, Rye. The fruits exhibited a remarkable variation, with leanings or reversions to the originals from which they came. They were most interesting and attractive.

A comprehensive collection of fruit, for which a silver-gilt Knightian medal was awarded, came from C. A. Cain, Esq., The Node, Welwyn (gardener, Mr. T. Pateman). *Morello Cherries*, *Kirke's Plum* (one of the finest dessert sorts), *Lord Napier* and *Pine-apple Nectarines*, *Green Gage* and *Transparent Gage* *Plums*, *Nectarine Violette* *Hative*, *Royal George* and *Bellegarde* *Peaches*, with *Figs*, were admirably shown. *Madresfield Court*, *Muscat* *Hamburgh*, *Muscat* of *Alexandria* and *Apple Tower* *Grapes* were admirable.

Mr. J. C. Allgrove, Langley Green, Slough, had *Plum Allgrove's Superb* (in excellent condition), with fruiting trees of the same. *Apples* *Lady Sudeley*, *James Grieve*, and *St. Everard* were also on view. *Pears* *Clapp's Favourite* and *Dr. Jules Guyot* were also noted. All were in excellent condition.

DUMFRIES AND DISTRICT HORTICULTURAL SOCIETY.

THE annual show of this society was originally intended to last over two days, but the continuance of the war led to a reconsideration of the arrangements. It was ultimately decided to hold the exhibition on the first, and a sale for war relief funds on the second, day. This proved a success, as the show and sale held in St. Mary's Hall, Dumfries, on August 27 and 28 were both successful. Trade and other exhibits had to be restricted in numbers and space, the only larger hall being occupied by the military. Trade exhibits were those of Messrs. Barr and Hunter, Maxwelltown; Mr. John Croall, Dumfries; Messrs. R. B. Laird, Dickson and Co., Edinburgh; and Messrs. J. Palmer and Son, Annan. Gold medals were awarded to the first three and a silver medal to Messrs. Palmer. A gold medal was also awarded to Mr. J. Jeffrey, gardener to Sir R. W. Buchanan Jardine, Bart., Castlemilk, for a superb exhibit of *Sweet Peas*. In most of the competitive classes there was a strong competition. The most successful exhibitor in the whole show was Mr. E. A. Grigor, Dalswinton, who thus won, for the second time in succession, the large silver cup of the society. There was a good competition in the class for dinner-table decorations, Mr. G. F. Hallett, Netherby, Longtown, coming first. In other open classes, Mr. Grigor, Mr. J. Henderson, Elmbank, Dumfries; and Mr. J. Houlston, Northfield, were the most successful. In the gardeners' and amateurs' classes for pot plants, Mr. Grigor, Mr. D. J. Maxwell, Newtonairs; Mr. J. Houlston and Mr. Henderson were the leading winners in a rather small section. Cut flowers were among the finest ever shown in Dumfries. Mr. J. M'Gill, Kirkcubright, Newabbey, won for a table of flowers cut from the open, and Mr. D. Campbell, Capenoch, led with herbaceous plants. The other first prizes in this section fell to Mr. D. J. Maxwell, Newtonairs; Mr. Campbell; Mr. D. Whitelaw, Lochbarbriggs; Mr. M'Gill, Mr. Henderson and Mr. Grigor. Fruit was very good, *Grapes* being specially fine. Mr. Campbell had the best collection of fruit and the best *Plums*. Mr. J. Cluckie, Arbigland, won for *Muscat Grapes*; the other firsts for *Grapes* going to Mr. Grigor. Mr. Hallett led with *Peaches*; Mr. Grigor with *Nectarines*; Mr. W. Scott, Drumpark, with *Melons*, *dessert Pears* and *dessert Apples*. Mr. Grigor had the best collection of *Apples*, and Mr. J. A. Mather, Hastings Hall, won with *culinary Apples*. Vegetables formed a capital section, Mr. Hallett having the best collection and Mr. Grigor the best *Potatoes*. Other first prizes were won by Mr. Maxwell, Mr. Grigor, Mr. J. Chalmers, Steilston; Mr. J. Cluckie, and Mr. W. Kerr, Dalswinton Village.

Sweet Peas were the finest feature of the show and were of exceptional merit. Mr. G. L. Moffat, Mayfield, Lockerbie, was most successful with several magnificent exhibits. The other first prizes were principally won by Mr. Grigor. Amateurs showed well in classes confined to themselves, but space does not permit of details. Mrs. Johnstone-Douglas, Comlongan Castle, opened the show, Sir James Crichton-Browne presiding. The sale on the second day was highly successful, Sir Geoffrey Barton performing the opening ceremony.

HIGHCLIFFE GARDENERS' ASSOCIATION.

E. HUNTLY HOOPER, Esq., J.P., and Lady Maud Hooper extended a cordial invitation to the members of this association to visit their residence, Shelly Hill, to tea and games on August 25. The weather was fine and the muster of members a full one. Mr. E. T. Griffin, the able head-gardener, received them at his residence and first conducted them round the kitchen and fruit garden and the hothouses. Here *Potatoes* and *Runner Beans*, *Celery* and *Onions* were splendid crops, and the batch of strong *Chrysanthemums* gave promise of a good display of blossom in due course. Mr. Huntly Hooper met the members on the lawn and conducted them round the pleasure grounds. The *Rose* garden was gay with clean, highly coloured blooms; the *Liliums* were strong and stately, bearing large flowers; the herbaceous plants and the annuals were at their best and made a charming display. Lady Maud Hooper favours large masses of colours, distinct, confining the colours to separate beds: there are blue borders, scarlet borders, &c., and these surround clumps of shrubs which form capital backgrounds. The terrace garden was gay with bedding-out subjects, *Heliotrope*, fibrous-rooted *Begonias*, *Antirrhinums* and *Calceolarias* being particularly noteworthy.

Mr. W. Sturrock, who has for some years been manager at Larchfield Nurseries, Dumfries, for Messrs. W. Learmont and Son, has relinquished his appointment to proceed to the United States to enter upon fruit farming. Mr. Sturrock has been a general favourite among his horticultural and other friends in and around Dumfries, and has done good service in the operations of the Dumfries and District Horticultural Society and the Dumfries and Galloway Gardeners' Association, of both of which bodies he was an active member and office-bearer. The good wishes of the many who regret his departure will go with Mr. and Mrs. Sturrock for their happiness and prosperity in their new enterprise.

THE GARDEN.

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SEPTEMBER II, 1915.

NOTES OF THE WEEK.

The War Horticultural Relief Fund.—This fund is being promoted by the Royal Horticultural Society to assist horticulturists in the countries of our Allies, whose gardens and nurseries have been devastated by the enemy, to rebuild their businesses on conclusion of hostilities. It is gratifying to learn that this fund is making progress, and that a total of £5,234 18s. has been received as a result of the appeal made to Fellows of the society. More funds, however, are required, and it is now hoped that a wider gardening public will respond. Donations may either be paid at once to the Treasurer of the Royal Horticultural Society, Vincent Square, Westminster (to the account of the War Horticultural Relief Fund), or they may be promised only and actual payment delayed until Peace is in sight.

Wanted: More Exhibitors of Vegetables.—It is very remarkable that while exhibitors of hardy and greenhouse flowers are innumerable, the exhibitors of the kitchen garden produce are few and far between. Utility, especially at this time, should take first place, as Mr. Herbert Chapman ably points out in his interesting article on "Exhibiting Vegetables" on page 446 of this issue. Good exhibits of vegetables are an incentive to the sound cultivation of vegetable crops, and we look for fresh names among the exhibitors at the Royal Horticultural Society's Show of vegetables to be held at Vincent Square on September 28.

Linaria alpina.—This is classed as an annual by the Rev. J. Jacob in his note in THE GARDEN for August 28. It is, however, a true perennial, though it is not included in the "Kew Hand List of Herbaceous Plants." Doubtless it is liable to be killed off in winter, but 50 per cent. survive on a retaining wall, and I have marked one plant of the rose-coloured variety which is at least six years old and going strong.—HERBERT MAXWELL Monreith.

A Potato Trial.—At a recent meeting of the Highcliffe Gardeners' Association, Mr. W. Weaver, hon. secretary, brought samples of five varieties of Potatoes grown on a trial plot in the Chewton Glen Gardens. In each case 14lb. of sets were planted. The following was the yield of the crops: The Factor, 266lb.; Up-to-Date, 196lb.; Acquisition, 250lb.; Duchess of Cornwall, 224lb.; and White City, 220lb. The samples showed excellent quality throughout.

Humboldt's Lily.—We are reminded of the exquisite beauty of this Californian Lily by the arrival of a photograph (unfortunately not suitable for reproduction) sent by D. F. Alderson, Esq., Park House, Worksop. The flower-spikes are shown carrying more than twenty blooms each. *Lilium Humboldtii* has flowers of a magnificent reddish golden colour, spotted purple. Our correspondent is successful in growing this Lily in 12-inch pots without heat, but in favoured

appointments that I think your readers may like to know of their effect. Their colour, being so unusual and unreal, did not recommend them to me when I first read about them, but, having seen them used, I am converted.—W.

Daffodil Olympia.—This is a remarkably fine Daffodil—one of the very best. If the name of Engleheart will go down to posterity as the raiser of White Lady, the name of van Waveren will very likely be remembered in like manner as the raiser of Olympia. As the illustration shows, it is a large trumpet variety—not of that smooth and even appearance which delights the heart of the exhibitor, but of a bolder and more *négligée* look. In colour it is of much the same shade of yellow as Emperor; if anything, rather deeper. It is a good increaser, of a most robust constitution, and equally useful as a border or pot plant. I would not advise it for early forcing like Golden Spur, but for bringing into flower from mid-February onwards it is a fine subject.

Sowing Cyclamen.—This is an excellent time to make a sowing of this useful greenhouse plant, and it will be well to observe from the outset that there must be no coddling. Sow in shallow pans in a mixture of good loam, leaf-mould and sand. Make this moderately firm and dibble the seeds in about an inch apart and a quarter of an inch deep. Cover the pan with a piece of glass, and shade till germination takes place. As the seedlings usually come up irregularly, dibble them into 2½-inch pots as they appear. Keep them growing on in a moist atmosphere, and have them sufficiently close to the glass to prevent them from becoming drawn.

Fragrance in Mignonette.—Of all the many families of the floral world which ought to be sweet scented, none would suffer more in popular estimation than Mignonette were it to be withdrawn. The popularity of scentless Roses and scentless Carnations must often make thinking people

wonder if the cry for fragrance is not very largely a creation of the horticultural writer. However this may be, it cannot be the case with a flower whose sweet savour won it its spurs. The modern seed list has several varieties of this annual to offer. A garden trial will reveal the fact that there is a vast difference in their respective sweetnesses. One advertised as white is nearly devoid of scent. Beware of white, then, when ordering.



THE TRUMPET DAFFODIL OLYMPIA. MAGNIFICENT IN FORM, COLOUR AND SIZE.

gardens it will thrive in a cool, moist, half-shaded peaty site among dwarf shrubs, and the same may be said of *Lilium parda'inum* and *L. superbum*.

Slate Grey or Blue Poppies.—Remembering, after reading in THE GARDEN last year of some slate grey or blue Poppies, I was much interested to see a vase of them on a dinner-table lately. They looked so beautiful on the white tablecloth and toned in so well with the usual table

OUR LATE EDITOR: A FEW APPRECIATIONS.

From Mr. S. Arnott.

I HAVE known Mr. Harvey for many years, and had the utmost admiration for his sincerity, uprightness and consideration. He was a true friend in every sense of the word, and I deeply mourn his early death. His loss to horticulture will be a great one.

Extracts from a letter from Mr. W. A. Bilney.

"IN the course of a long life I have known much sadness, but I have never known anything sadder than the death of Mr. Harvey. Little did I think when I saw him, on the eve of going North, that it would be the last time we should ever meet. Mr. Harvey was a man who deserved to succeed, and he would have got higher up the horticultural ladder if he had lived. A straighter and pleasanter man I never knew, and I feel his death most keenly. Mr. Harvey was not a mere journalist; he was a real gardener who had his heart and soul in his garden."

From Mr. F. J. Chittenden.

THE news of Mr. Harvey's sudden death came as a great surprise to me, as I had not known of the serious nature of his illness. I have known him many years, first as a youth eager to learn all he could in the gardening classes at what was then the County Technical Laboratories, Chelmsford, and then as a painstaking and industrious gardener in the experimental garden attached to that institution, and an earnest debater at the discussions which formed a feature of the courses of instruction.

Wherever his work lay, his genial trustworthiness enabled him to gain the confidence and appreciation of those who were connected with it, and they never found him fail. His passing, almost at the beginning of what bid fair to be a career of great usefulness, will be a great sorrow to all who knew him, and not least to me.

From the Rev. Joseph Jacob.

EVER since I began to write for the horticultural Press I have been thrown into personal contact with our late Editor, while of recent years, since he was appointed to the proud position he held at his death, I have seldom visited London without having a chat. I often used to chaff him about editors having a jolly good time, but, all the same, I knew how hard he worked for his paper. I think I may claim for his efforts a full measure of success. THE GARDEN has improved greatly of late years. I know there are many readers who will bear me out in this. He did good work for gardens and gardeners, for his energies and sympathies were not confined to his desk or to his writings.

My London visits will never be quite the same now he is gone. There will be a gap on show Tuesdays, and a memory only will remain, but that memory will recall a quiet, courteous, kindly, unassuming friend, ever ready to help anyone in a difficulty; a man full of love for his home and garden, and one with a real liking for his profession, in which, had longer life been vouchsafed to him, he would have left an even more enduring name.

From Mr. E. H. Jenkins.

To a large number of the readers of THE GARDEN, as well as to a host of intimate and admiring friends, the news of the sudden death of the Editor of this journal in the early morning of August 31 came as a staggering blow.

To THE GARDEN he was devoted in a dual sense that few perhaps realised, and a much larger number knew not of at all. He made his own private garden a more than useful adjunct to his journal, rendering it, indeed, in some measure at least, a sort of storehouse from which information and object-lessons, could be drawn at will.

And now he is no more. A young and promising career has been suddenly and unexpectedly terminated. Respected everywhere for an uprightness beyond reproach, his loss will be much more keenly felt by those who were privileged with his friendship. To such his early death is indeed a great personal loss.

From Mr. C. Wakely.

MR. HARVEY was a native of Stebbing, a quiet country village in Essex. After leaving school he worked for Mr. Philpott, a seed and fruit grower.

While thus engaged he joined an evening gardening class arranged by the Local Education Committee, his employer being the teacher. It was there that I first met him, and advised him to attend the central courses of instruction in horticulture arranged by the Essex Education Committee at Chelmsford. This he did during the year 1899. Here he proved an apt pupil, and soon made good progress in work and study.

A few months later an under-gardener was required for the County Gardens, and he was selected for the post.

After about four years spent in the County Gardens, he proceeded to the Royal Gardens, Kew, in order to gain a wider knowledge of plant life.

Having worked more than a year at Kew, he obtained an appointment on the staff of the *Gardener*, in July, 1905. Later he accepted the post of Assistant Editor of THE GARDEN. On the resignation of the late Mr. E. T. Cook, Mr. Harvey became Editor.

His career closes at an early age. His comparatively rapid progress to the Editor's chair serves to prove both his ability and application. His work has brought him into touch with many plant-lovers, by whom he will be missed and mourned.

From Mr. W. Watson.

WHEN Mr. Harvey left Kew ten years ago he had been with us two years. He came with an excellent recommendation from Mr. C. Wakely of the Essex County Council, in whose garden he had been as second man for nearly three years, and he more than justified it, for at Kew he was studious as well as keen and efficient at the practical work; the sort of man that would make his mark in almost any calling. He was not of the showy type; rather one of the kind that wait to be pushed to the front, and when they get there surprise people by revealing unusual knowledge and fitness. Those who knew Harvey liked and respected him; certainly I did, and I knew him very well.

From the Rev. David R. Williamson.

THE late Mr. F. W. Harvey was one of my kindest and most considerate friends. Under his editorship it was a perfect privilege to contribute to THE GARDEN. I seldom sent him a contribution, that he did not at once acknowledge. He will be greatly mourned by all contributors.

THE sudden and lamentable death of Mr. F. W. Harvey was briefly referred to in our last issue. From the day of his appointment as Editor of this journal it was my privilege to work in association with him as Sub-Editor, and his death, to me, came as a great shock. Mr. Harvey was an exceptional man, exceptional in his devotion to duty and in his determination, so far as it is humanly possible, to be absolutely fair to all with whom he was brought in contact. He took almost a personal interest in the gardening troubles of any reader of this journal, and extracted no small amount of pleasure in being able to assist them in solving their difficulties. It is impossible to print a tithe of the expressions of regret that we have received from our readers. Mr. Wakely has kindly furnished some facts dealing with Mr. Harvey's early life, to which can be added some particulars of his horticultural appointments and work. He was the author of "Fruit Growing for Beginners," and he edited "The Hardy Flower Book," "The Small Rock Garden," and "Gardening for Beginners" (sixth edition). He was a member of the Floral Committee of the Royal Horticultural Society; a member of the Council of the National Rose Society; chairman of the National Sweet Pea Society in 1914; and a member of the Committee of the Kew Guild. His life full of promise closes at the early age of thirty-three years.

H. COWLEY.

The Funeral.

MR. HARVEY was laid to rest in Romford Cemetery on the afternoon of September 4. A considerable number of horticultural and other friends joined in the procession at the cemetery gates. The service was choral, the Rev. Joseph Jacob, who made a special journey from Whitchurch, Salop, reading the Lesson. Among those who gathered around the grave were A. C. Bartlett, A. E. Burgess (Surrey Education Committee), F. Herbert Chapman, Rifleman H. Cowley (Assistant Editor of THE GARDEN), E. H. Christy (Chairman of the National Sweet Pea Society), H. Calkin (*Country Life*), C. H. Curtis (*Gardeners' Magazine*), Walter Dallimore (Royal Gardens, Kew), Walter Easlea (National Rose Society), E. H. Jenkins (Floral Committee, Royal Horticultural Society), E. G. Quick, A. Osborn (Kew Guild), R. Pinches (Horticultural Club), and W. H. Young. Upwards of thirty beautiful floral tributes were sent, and, apart from those from his widow and son and his relatives, were others from the staff of *Country Life* and THE GARDEN, C. H. Curtis and family, Messrs. Barr and Sons, F. Herbert Chapman, the Floral Committee of the Royal Horticultural Society, E. H. Jenkins and family, the National Sweet Pea Society, W. H. Young, "Friends of the 8.44" (Mr. Harvey's usual train), A. C. Bartlett, Walter Easlea, the Kew Guild, and the Gidea Park Horticultural Society.

TREE LEAVES.

HOW TO MAKE GOOD USE OF THEM.

IN districts where tree leaves are to be had in abundance throughout the autumn, they should be more appreciated this winter than usual. As a rule, sufficient are stored to supply the demands for leaf-soil for potting and similar purposes, the remainder being scattered about in woods and odd places. In one large garden I had charge of, I generally had carted in more than a hundred tons of freshly fallen leaves every winter; it would not have been difficult to have had carted in twice the weight. The leaves were used for the forcing of Rhubarb and Seakale, for early Potatoes in frames, also for early Carrots in frames; and for leaf-mould, Oak and Beech leaves were selected. Many tons of leaves were also spread in the stock yards and, in due course, were converted into excellent manure.

One autumn I had an idea of making still further use of the leaves—I always had three distinct heaps: one of well rotted, one of partially rotted, and one of fresh leaves—by levelling the surface of the last two heaps and raising early Potatoes and Carrots, on them, thus utilising the gentle heat they engendered. On the surface of the leaves, ordinary soil was wheeled and spread out about 9 inches deep.

Movable frames were placed on the choicer vegetables, and dry litter spread on the Potatoes in frosty weather. The heat arising from the bed of leaves kept the crops safe from about 6° of frost without any covering. The planting of the tubers and the sowing of seeds were carried out in January and early in February. All this work did not interfere with the decomposition of the leaves; in fact, it hastened it for other uses afterwards.

Cultivators who can should not neglect the ingathering of tree leaves this autumn; they may be mixed with the old leaves of last autumn that have not rotted. Old potting and other soils should also be placed in a heap in readiness for spreading out on the leaves in due course. Make the heap, in the first instance, about 5 feet high; as the leaves heat they will settle down, and the soil placed on them will also cause them to sink down.

In addition to Potatoes and Carrots, early Turnips, Lettuces and Radishes may be raised. When these are gathered, put on a couple of inches of soil and grow Spinach, Lettuces and Radishes throughout the summer of 1916; also Vegetable Marrows and Ridge Cucumbers.

If carefully managed, the cultivator will be astonished at the amount of useful and high-class produce he will secure. Oak leaves certainly make the best quality leaf mould, and where these are not obtainable preference should be given to Beech leaves. Leaf mould is a necessity in gardens, and no opportunity should be missed in laying in a store during the autumn. G. G.

A BEAUTIFUL ORCHID.

(*RENANTHERA STORIEI*.)

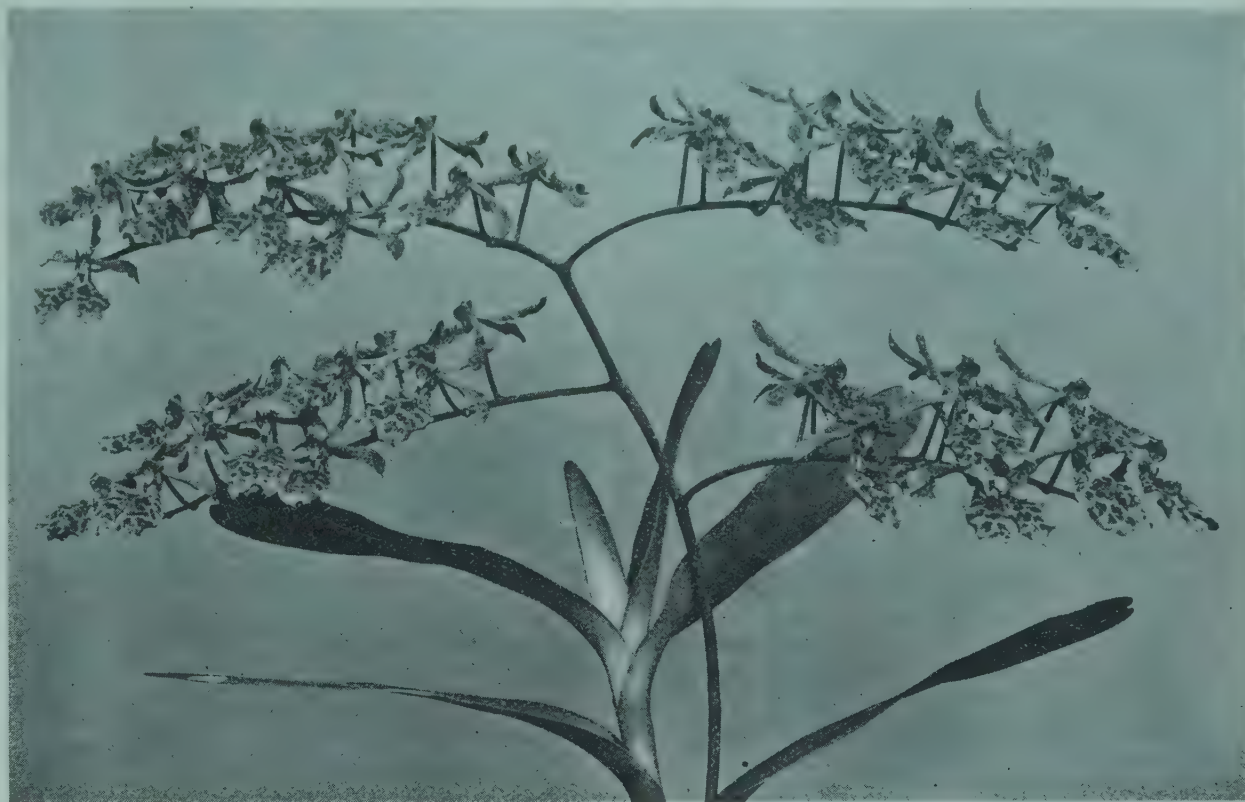
THIS rare and beautiful Orchid is now flowering for the first time in the Kew collection, where it has been much admired by many visitors who have passed through the Orchid-houses. Although seldom seen in cultivation, it is by no means a new plant, as it was first described by Reichenbach in 1880, and is also recorded as flowering in the late Sir Trevor Lawrence's collection at Burford in June, 1896.

The plant in question is 4 feet high, while the branching inflorescence is bearing forty-six flowers. Individually, the flowers are 2½ inches long and 2 inches broad, the dorsal sepals of an orange red colour, mottled with crimson, the lower sepals dark crimson with velvety, blood red blotches,

A FEW HINTS ABOUT ROSE MILDEW.

By EDWARD MAWLEY, V.M.H.

MILDEW is one of the greatest and most persistent enemies that it falls to the lot of the earnest rosarian to contend against. For years I fought it successfully with flowers of sulphur, by dusting it lightly over the foliage in the evening from a small bag made of fine muslin. As years went on I came across some sulphur bellows, which enabled me to get over the work more quickly and made it more effectual, as the lower surfaces of the leaves were reached by the sulphur as well as the upper. The more modern plan is to use some form of liquid fungicide and spray the plants with it. This plan has certainly the advantage of not disfiguring the foliage and flowers. But, after all, the sulphur



AN INTERESTING ORCHID, *RENANTHERA STORIEI*, FLOWERING AT KEW FOR THE FIRST TIME.

and the small crimson lip is marked with yellow bars. The dark green, fleshy leaves are from 8 inches to 10 inches long, and 1½ inches broad.

This *Renanthera* should be given the same treatment under which *Vandas* thrive, that is, a fairly high temperature, with an abundance of moisture during the summer months, but only sufficient water should be given to prevent the stems and leaves from shrivelling in winter. At all times the plant should be exposed to as much light as possible, shading only during the hottest sunshine. It should be potted in equal parts of *Osmunda* fibre and sphagnum, with an abundance of drainage.

R. storiei is closely allied to the better-known *R. coccinea*, but it is a much finer species in having larger flowers, which are more brilliantly coloured. Like *R. coccinea*, it is very shy in producing flowers. It is a native of the Philippine Islands, and is figured in the *Botanical Magazine*, t. 7537. W. T. KEW.

treatment has its advantages, too, for on the next and following days after its application, whenever the sun is shining, the whole of the Rose garden and all parts of each plant become enveloped in a subtle sulphurous atmosphere which I found proved very detrimental to the progress of the enemy.

Towards the end of the long drought in the early summer of the present year, a bad attack of mildew set in all at once in my Rose garden. I could not understand why this should be until I looked at the trace taken from my thermograph, when I found that on several nights the temperature had been steadily falling until 6 a.m., and had afterwards risen rapidly as the day advanced. On the coldest of these nights the thermometer on the grass fell to freezing point. I at once mixed up some V2 K, a local remedy for mildew prepared by Messrs. William Cooper and Nephews of Berkhamsted. This I applied by means of the Boundary Chemical Company's "Demon" Sprayer to the whole of my 2,000 Rose plants,

taking care that no part of any of them should be missed.

After all this trouble had been taken, the next day I visited a friend's garden only a few hundred yards away, at the same level and on the same side of the hill as my own, where I found

the Roses were only very slightly troubled with mildew. I afterwards descended to the churchyard just below this garden, and there, too, the Roses I had planted some years ago were in the same happy condition. The lesson to be learnt from this contrast is, of course, that a Rose garden like my own, surrounded on all sides by shrubs or trees, although apparently sufficiently open, owing to its closer atmosphere favours mildew and other kindred ailments to which most of our cultivated Roses are heir; whereas a freely exposed position is far better for their well-being, although it may not display their beauties to the same advantage. On the other hand, where possible, all extreme conditions should be avoided, for a cold draughty site is even worse than a moderately sheltered one.

But to return to mildew and its remedies. It is often thought that one really good spraying, such as I have previously described, with a suitable remedy is sufficient to last for pretty well the whole year; whereas the spraying should be repeated at all events every ten days or a fortnight afterwards throughout the rest of the Rose season, if any satisfactory results are to be obtained. I once went to see a friend's Rose garden at Shepperton where there was not a speck of mildew anywhere to be seen. On enquiring the reason, the lady informed me that she herself sprayed the whole of her 200 Roses every evening. I do not remember what remedy she used, but it certainly did not appear to have any ill-effects upon the plants themselves, which looked remarkably healthy and strong. Not only should the spraying be continued at regular intervals throughout the season, but the most important point of all is that it should be begun directly after the plants have been pruned in the spring.

In order to show that spraying will restore even Rose plants badly affected with mildew to comparative health, I may state that at the bottom of my Rose garden is a shrubbery, on the other or south side of which is the drive to the house. Along the edge of this shrubbery, on that side, are scattered here and there a dozen or more plants of the Old Red Damask Rose, peeping out here and there from under the shrubs. After spraying my Rose garden as before described, I happened to catch sight of these Damask Roses, and a pitiable sight they presented, for much of the foliage was absolutely white with mildew—just as if it had been dusted over with flour. I at once set to work and sprayed them—drenched them, I should say—with a strong solution of $\frac{1}{2}$ K. In about a week's time I gave them a similar dose, and in a fortnight from the date of the first spraying they were virtually restored to health and flowered freely. No doubt the tougher foliage of these Damask Roses, as compared with that of most of our modern Roses, enabled them to withstand the drastic treatment I had dealt out to them.

There is one point about spraying that I had almost forgotten to mention, and yet which is of considerable importance, as it tends to prolong the life of the sprayer and keeps it in really good working order, and that is, as soon as the spraying is finished, some clear water—if hot, so much the better—or, even better still, some petrol, should be drawn up by the sprayer and sprayed through it,

in order to get rid of any sediment from the spraying fluid that may have been left in it. The sprayer should then be hung up in a clean and dry place until again wanted.

EXHIBITING VEGETABLES.

EXHIBITS of vegetables have been few at this year's leading shows. One scarcely knows why, for in this war-time one would imagine that utility would take a first place, and undoubtedly the recent seed trade in vegetables has been a useful item. It is curious that, although exhibitors of flowers and flowering plants are legion, the leading and regular exhibitors of vegetables may perhaps be counted on the fingers of one, or, at most, of both hands. I have often racked my brains as to why this is. Mr. Edwin Beckett (ably seconded by his lieutenant, Mr. Pritchard) has been, perhaps, the first man to reduce the exhibiting of vegetables to a fine art; and I can well understand the foreign visitors at the International Show at Chelsea a few years back standing and marvelling, as I saw them, before his beautifully displayed selection of choice and perfectly grown esculents, especially as their own things were put up so very indifferently, the French being, to me, the worst offenders and my greatest disappointment, after all I had heard and read of French vegetable gardening. It absolutely pained me to go into the French tent and see the way their produce, lavish enough in quantity, was simply lumped upon the tables.

I have sometimes been asked what is the secret of successful vegetable exhibiting, and what is the method to pursue. I always reply that I do not know how it is done, but that the man who is most successful in making his produce look appetising is the surest to get home. My friend Mr. Beckett has a knack of putting up his things, so that when I come and survey them, they (the salad items especially) instantly make me feel hungry.

Of course, nearly everyone has now for a long time been aware that mere size is only a comparative factor. Flavour should, of course, be the great desideratum; but as we cannot taste the good things, am I not right in saying that the important point is to make them look as appetising as possible on the stage? There can, of course, be no rule-of-thumb method in doing this, and practice and experience are the only guides.

Colour is a difficult thing to get satisfactory. When one comes to think of it, it is remarkable what a small proportion of our vegetables exhibit bright colours, and a few judiciously distributed dishes, such as of Tomatoes and Capsicums, always light up and give brightness to the otherwise prevailing shades of green. There are doubts as to the strict legitimacy, perhaps, of using Ornamental Beet, but, after all, it is a vegetable garnish, and I myself see no objection to it from that point of view, while it is undoubtedly a very helpful adjunct where bits of bold colour are wanted here and there.

I am looking forward with intense interest to the forthcoming large show of vegetable produce at the Royal Horticultural Hall this month. Perhaps it will be the means of obtaining a few useful recruits to the at present somewhat small corps of outstanding exhibitors of vegetables. One hopes so.

F. HERBERT CHAPMAN.

SEASONABLE NOTES ON VEGETABLES.

French Beans growing in frames should have protection at night, as at this time of the year the temperature falls nearly to freezing point, which would cause a check to the growth of the plants. If there is danger of the plants becoming too crowded thin them either by removing a whole plant here and there or by reducing their size. Keep the roots well supplied with water—those in bearing would be benefited by occasional soakings with liquid manure—cease syringing the plants at night and close the frames early to conserve solar heat.

Cabbage.—The main batch of plants may now be put out on ground specially prepared for them by digging, or on ground previously occupied by Onions, which, having been well prepared for that crop, is in good condition to carry a green crop like Cabbage. Clear the ground of weeds by hoeing, and draw drills 2 inches deep in which to put the plants. Here they are easily watered, should a spell of dry weather prevail after planting. Plant thickly with a view to economising space; alternate plants can be removed early in the spring, thus giving an extra early crop. Where slugs are troublesome, sprinkle finely sifted coal ashes around each plant; these are the best preventive of these pests.

Carrots.—Towards the end of the month the main crop should be lifted and stored in ashes or sand in the open, or in a shed or cellar. Do not put too many roots in a heap, especially if they are large. The later-sown batch, if they have not attained full size, may remain. If they are left in the ground after they are fully matured, they commence a second growth by emitting roots all over the Carrot itself, which weakens the flavour and, naturally, deteriorates the quality. Thin those sown in frames directly they are large enough to handle; this will induce the stockier growth of those remaining.

Endive.—The earliest-growing plants in the open should be blanched at once, either by lifting and placing them in beds of soil in the Mushroom-house or shed, or in frames, where light must be excluded by closely covering the glass with mats. An inverted flower-pot with the hole covered, turned over the plants, will suffice in the open, or long slates or boards may be placed on the top of the plants. The largest plants may be tied up in the centre, covering the hearts with the outer leaves. A later batch should be pricked out in frames and encouraged to grow rapidly for winter and spring use.

Onions.—The early main crop should now be lifted, laid on the surface to dry for a few days the bulbs may then be placed on a dry gravel path, boards, or wattle hurdles. This is a good method of thoroughly drying them off, as air passes under them, maturing the skins, which is all-important for their future keeping. The larger bulbs of the Ailsa Craig type should be lifted with a fork, as their roots will have penetrated deep into the soil. Any bulbs not quite matured may be hastened by partially lifting, thus giving a check to further growth. Handle carefully to avoid bruising the skin. If the weather is dry, leave the bulbs in the open for a few days. Afterwards place them in boxes on wood wool in a greenhouse or vinery to thoroughly mature. As the necks die down, tie them neatly as near to the bulbs as possible, making the necks look quite small.

Potatoes.—The haulm that a short time since was so vigorous has rapidly decayed, owing to an attack of disease. Whether the tubers will suffer seriously in consequence cannot yet be determined. In any case it is wise to take all possible steps to prevent such a catastrophe. All early and second-early varieties should be carefully lifted at once, removing any tubers that show the slightest sign of decay. Thoroughly dry them by exposure before storing them away in sheds, cellars, or clamps. Select tubers for next year's planting; those weighing about 2oz. are regarded as the most suitable. Late varieties should have their tops pulled up where the tubers are not sufficiently ripe for lifting, as the removal of the haulm may prevent the spores of disease reaching the tubers. If, however, the skin of the tubers is firm and not easily removed by handling, it would be wise to lift the whole batch, carefully looking them over to detect any diseased parts.

Spinach.—Make another, the final, sowing of the Prickly variety in drills a foot apart. Well surface stir the ground in which earlier-sown batches are growing to accelerate and firmly establish the growth before winter arrives. If previous sown batches of plants are too thick, remove the weaker ones to encourage a sturdier growth to those remaining.

Turnips.—A final sowing should be made of the usual winter and spring varieties, such as Prizetaker, Chirk Castle and Black Stone.

Asparagus.—The newly planted roots are still growing vigorously, even throwing up heads now. Firmly secure the tops so that they will not be broken off at the neck. The easiest way of doing this is to run wire or string about 3 feet high around the bed, or firmly thrust in the ground among the plants short Pea stakes, which prevent the swaying of the plants, no matter how heavy they become.

Swanmore.

E. MOLYNEUX.

COLCHICUMS AND AUTUMN-FLOWERING CROCUSES IN GRASS.

ALTHOUGH everyone who has a garden of any pretensions tries to produce a beautiful floral feature during the early months of the year by naturalising bulbs in grass, few people take advantage of the autumn-flowering Crocuses and Colchicums to produce a similar effect in September and October, yet a very striking picture may be made by their aid. Planted among grass they thrive quite as well as the spring-flowering kinds, and require similar treatment. The colours vary from crimson to white in the Colchicums, and from blue to yellow and white in the Crocuses. Colchicum autumnale and its varieties *C. speciosum*, *C. byzantinum* and *C. variegatum* may all be used, while good Crocuses are *C. speciosum*, *C. longiflorus*, *C. pulchellus*, *C. sativus* and *C. asturicus*. Some bulb-dealers make a speciality of supplying mixed bulbs of both genera for naturalising. The illustration on this page of *Colchicum speciosum* is prepared from a photograph taken in the beautiful grounds at Gunnersbury House Gardens, where autumn flowers form a pleasing feature.

NEW AND RARE PLANTS.

FIRST-CLASS CERTIFICATES.

Catasetum Bungeorthii.—A particularly well-grown example of this rarely seen species, bearing a nine-flowered raceme, was shown. The handsome, somewhat cupped flowers are of a fine ivory white, with the faintest suspicion of pink in the centre. From Sir Jeremiah Colman, Reigate (gardener, Mr. W. Collier).

Cattleya Sybil variety W. R. Lee (*C. iridescens* × *C. aurea*).—A remarkably handsome hybrid of quite unique colouring. The sepals and petals are orange coloured, reticulated with salmon, thus affording an almost unique combination. The handsome lip is of crimson purple, and self coloured save for the delicate veins and lines of yellow near the throat. Exhibited by W. R. Lee, Esq., Plumpton Hall, Heywood (gardener, Mr. Branch).

Sophro-Cattleya Sylvia (*S.-C. Doris* × *Cattleya hardyana*).—This remarkable hybrid only carried

coloured base. Shown by S. Morris, Esq., Earham House, Norwich.

Cydonia Mallardi.—A 12-feet high example of this was shown in fruit. The fruits are of large egg size and of olive green colour.

Berberis Sargentiae.—A highly ornamental evergreen species, and valuable on that account. It is also distinct. The 3-inch long leaves are ovate-lanceolate, toothed, and firm and leathery to the touch. It is well armed with pale yellow, nearly 2-inch long spines. These two novelties were from the Hon. Vicary Gibbs, Aldenham House, Elstree (gardener, Mr. E. Beckett).

Dahlia Caprice.—A decorative variety, single, pure white, and strikingly bordered with crimson. It is very distinct. From Mr. Charles Turner, Slough.

Dahlia Warneford (Decorative).—A pure white variety of handsome proportions. From Mr. J. T. West, Brentwood.

Dahlia Primrose Queen (Collarette).—Of pale yellow colour with white inner florets. Quite



THE MEADOW SAFFRON (*COLCHICUM SPECIOSUM*) NATURALISED IN GRASS

one flower, wholly coloured reddish purple, with deeper plum purple lip of dusky hue and throat yellow lined at the base. Exhibited by J. Gurney Fowler, Esq., Pembury, Kent.

Himalayan Blackberry.—Having been grown and tested at Wisley, this handsome, free-cropping sort was there awarded a first-class certificate, which is now confirmed.

AWARDS OF MERIT.

Lælio-Cattleya eximea delicatissima (*Lælia purpurata* × *Cattleya Warneri*).—An unusually attractive and decorative form, the two scapes carrying seven fully expanded flowers of large size. The sepals are white; lip violet purple with white centre; throat yellow. A very free flowering and showy variety. From J. Gurney Fowler, Esq.

Cattleya hardyana alba.—The white sepals are of unusual length, the red purple lip blotched with white and yellow near the throat. From J. Gurney Fowler, Esq.

Eschscholtzia The Geisha.—A remarkably good coloured variety. Internally a pure orange tone prevails; externally the colour is of intense orange crimson. A most striking novelty. From Messrs. James Carter and Co., Raynes Park, S.W.

Montbretia Queen Elizabeth.—A good and distinct variety of dark orange tone with lighter-

distinct. Exhibited by Messrs. J. Cheal and Son, Crawley.

Dahlia Yellow Star.—This belongs to the Crawley Star set and is a counterpart of the others save in colour, which is rich yellow. The disc is orange. From Messrs. J. Cheal and Son, Crawley.

Dahlia Scarlet Queen (Collarette).—A distinct and showy variety of large size; the inner florets are yellow. Shown by Messrs. Dobbie and Co., Edinburgh.

Dahlia Herald (Collarette).—This is of rose pink colour, white inner florets and rich yellow disc.

Dahlia Miss Judd (Cactus).—A shapely variety of yellow to primrose colouring.

Dahlia Washington (Cactus).—Of ruby crimson tone throughout, with fine incurving florets. These three were shown by Messrs. James Stredwick and Sons, St. Leonards-on-Sea.

The above-named Dahlias were adjudicated upon by a joint committee of the floral committee of the Royal Horticultural Society and the National Dahlia Society, and therefore carry the award of merit of the former and first-class certificate of the latter.

The whole of the foregoing novelties were before the Royal Horticultural Society on August 31, when the awards were made.

CLEMATISES AND THEIR CULTIVATION.

ALTHOUGH these plants provide us with some of the most beautiful climbers that are hardy in this country, their cultivation does not seem to be well understood. It is true that in some gardens Clematises will, when once planted, romp away in a delightful, free-and-easy manner, and give but little trouble to their owners, but in others any amount of coaxing will not induce them to do more than eke out a miserable existence. Even when they are established, their management appears to be but little understood, and for this reason we propose to draw attention to a few of the more salient points in their cultivation.

Naturally, the soil in which they are to grow must be the first consideration, and here a lesson may be taken from the wild Clematis, or Traveller's Joy of our hedgerows, a plant that is largely used as a stock on which to graft the many beautiful garden varieties that are in existence. This wild Clematis is usually found growing in the banks of hedgerows where thorough drainage is assured, and where its roots are shaded during the hot days of summer from the direct rays of the sun. The character of the soil in such positions may, and frequently does, vary considerably, but almost invariably it will be found to contain a fairly large percentage of lime. This, then, may reasonably lead us to suppose that the Clematises of our gardens require soil that is exceptionally well drained, and which also contains a fair proportion of lime, a supposition that is borne out in practice. It does not seem to matter much what the bulk of the soil is, providing it is not excessively poor or abnormal in some other way, so long as it is deeply worked, well drained and contains a sufficiency of lime. A good form in which to add this substance is as old mortar; a peck or two well mixed with the soil for each plant will not be too much.

Planting, again, is another serious cultural detail, as on its successful completion success will largely depend. We have no doubt that one of the chief reasons for these plants dying off suddenly after they have apparently become established and are growing away freely is too deep planting, and possibly grafting instead of layering being the method of propagation. The roots should be carefully spread out, and ought not to be covered with more than 2 inches of soil, even less being sufficient where that of a clayey texture exists. The season for planting may be autumn or spring,

but we prefer the latter, the end of February or early March being a good time. Growth at that season is about to commence, and the plants soon make themselves at home in the new soil. The positions in which Clematises are planted will, of course, depend largely on individual tastes, but if against a south wall, some provision for shading the soil over the roots during very hot weather should be made. A low-growing annual, such as Mignonette or Alyssum maritimum, may be sown over the roots for this purpose without fear of injuring the climbers. But Clematises look far better when allowed to scramble naturally over rustic

open in May and June, Belle of Woking being a notable example. The flowers of this set are born on wood that was formed the previous year hence it will be readily seen that to cut away growth in autumn or spring would mean the destruction of many embryo flowers. Any thinning out of old wood that is necessary may be done immediately after flowering without any danger of cutting away incipient buds. Similar treatment should be given to those which have originated from *C. patens*, a native of China and Japan. These also flower in June, Fair Rosamond being a well-known member of this set. When we come to

the large-flowered varieties of *C. lanuginosa*, which flower from July onwards well into the autumn, we find they are produced mostly on young shoots, and the proper method of pruning these is to cut back fairly close all side shoots in February. A few of the main stems may also be cut to within 1 foot or 2 feet of the soil if desired; this will induce young shoots to spring up from the base and so hide the bare stems that are rather characteristic of these large-flowered Clematises, of which Lord Nevill and Louis van Houtte are examples. The Jackmannii varieties need similar treatment; but such early flowering species as *montana* and its variety *rubra* only need an occasional thinning of the old wood after flowering.

ORIENTAL LILIES IN SCOTLAND.

OWING to the long prevalence of almost tropical heat in the month of June, Oriental and Occidental Lilies did not attain this season, in South-West Scotland at least, to their normal dimensions. In all probability they would have proved a disastrous failure but for the beneficent rains that came quite providentially for agriculture and for horticulture in the beginning of July.

It is entirely owing to their influence that late varieties, like those of the *auratum* and *speciosum* species, have so greatly improved. Here at Kirk House, in the beautiful Wigtownshire

Parish of Kirkmaiden, I have grown the *longiflorum* and *speciosum* for the most part in a small conservatory, where such splendid representatives of these as *longiflorum giganteum* and *speciosum Kratzeri* and *magnificum* have been a greatly gratifying success, the flowers being at once numerous and commanding in their size.

In Logan Gardens a glorious group of *paradinum* hybrids, of fascinating aspect and intensely glowing colours, attracted my attention when last I was there. *Lilium giganteum* (from the Himalayas) also, though not, perhaps, quite so lofty in stature as in former seasons, presented quite an impressive appearance.



CLEMATIS OVER A GARDEN ARCH.

poles or fences, or even over old evergreens or deciduous trees.

Probably the least understood phase in the cultivation of Clematises is their pruning. In the majority of gardens they are allowed to follow their own sweet will, and this certainly is preferable to cutting them in a haphazard way and without full knowledge of their flowering period. Roughly, our garden Clematises may be divided into five sections, and if we know to which section a plant belongs, its pruning will be a simple matter. In the *florida* section, *i.e.*, varieties that have originated from the Japanese Clematis *florida*, we get white, blue, and rose-purple flowers, that

These fine Lilies, like the Magnolias, which also luxuriate in those gardens, receive every possible attention from Mr. Kenneth A. McDouall and his highly capable head-gardener, Mr. R. Findlay. About two months ago I had the privilege of visiting the gardens at Lochinch Castle. At that time the Lilies were suffering from drought, but the Countess of Stair recently wrote me that since then, owing to the advent of the rain, they have, like the Roses and herbaceous plants, greatly improved. *Lilium giganteum* and *L. auratum* platyphyllum, grown in a wood, usually attain there to a quite abnormal height. The finest Lilies this season in Kirkmaiden Manse Garden have been *candidum*, *Hansonii*, *pardalinum* var. *Burbankii*, and *szovitzianum*. DAVID R. WILLIAMSON.

SWEET LAVENDER.

Of the old street cries of London that may still be heard during the season is "Sweet Lavender," for at the present time a few housewives still adhere to the custom of putting some spikes of its dried flowers in the linen closet, and in this way impart a pleasing perfume to its contents. The plant itself is not so well known to the Londoner, though large quantities are grown in the neighbourhoods of Mitcham and Hitchin. The flowers

there produced are not only retailed in a dry state, but many of them are distilled in order to obtain the Old English Lavender water.

Planted as a hedge it forms a really delightful feature, not only during the flowering period, but also throughout the year, as the greyish tone of its foliage serves in the summer as a foil to bright-coloured flowers. Not only as a hedge plant is it seen to advantage, but in many other parts of the garden it is equally effective. Associated with dark-leaved evergreens the Lavender, from its direct contrast, is most striking. Being fond of a well-drained situation it is well fitted for the bolder parts of a sunny rockwork, while a bed or mass of Lavender alone is always attractive. From the sober tone of its foliage it harmonises well with old walls, and where such exist in a garden a suitable spot for the Lavender may be at once suggested. In the same respect it is equally in keeping with ancient dwellings, old ruins and similar places. It was once my good fortune to see the sloping banks on either side of a sunken path completely clothed with Lavender, and at all times, but particularly during the eve of a hot summer's day, it formed a most delightful and soothing retreat, while its flowers were much sought after for indoor use. With regard to the flowers and the time for cutting, they must not be too fully expanded before separating them from the plant, otherwise many of the blooms will very quickly drop. As might be expected from a native of Southern

Europe, the Lavender prefers a well-drained, warm soil, rather than a cold and heavy one; in fact, stagnant moisture of any kind is quickly injurious to it. On sloping banks and similar positions, especially where fully exposed to the sun, Lavender will thrive better than most shrubs, for a shrub indeed it is, though not of so lasting a nature as many of them are. Old plants are liable to die off suddenly, and even when this does not happen both the foliage and flowers are inferior to those on younger and more vigorous specimens. In a general way, after the Lavender has reached the age of six years it is more satisfactory to replace the old plants by younger ones.

There is no difficulty about this, as cuttings strike root very readily if put into a cold frame in August or in a warm, sheltered border out of doors in September. The border should be well dug, and the cuttings, from 8 inches to 1 foot in length, must be firmly inserted in the ground for half that distance. The buried portion should have the leaves cut off with a sharp knife or pair of scissors.

The following autumn these cuttings will be well rooted and ready to transplant into their permanent quarters, or put in nursery beds for another season. Cuttings put in the frame can be planted out the following spring. A good deal may be done to extend the life of the Lavender longer than if allowed to grow untouched by pruning it back moderately directly after the flowering season is over.



A LOW LAVENDER HEDGE IN A SURREY GARDEN.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Peaches and Nectarines.—Any trees which have been unsatisfactory in cropping should be examined at the roots, and, if necessary, they should be lifted or partially lifted and planted in fresh soil. If the work is carried out carefully, next year's crop will be considerably improved. A trench about 3 feet wide should first be taken out as far away from the stem of the trees as possible. The soil may then be carefully removed from about the roots with a fork. If it is necessary to lift the whole of the roots, great care must be taken so that as few as possible are damaged. See that the drainage is in good order before putting in the new soil. To facilitate the work of planting, have all the materials at hand before the work commences. Do not add more soil than is absolutely necessary at one time, and see that it is rammed quite firmly.

Young Trees.—Trees which have been planted in recent years need lifting occasionally to encourage the formation of fibrous roots. The soil must not be too wet or too dry when this work is to be done, or the lifting will not be done satisfactorily. Carefully reduce the ball of roots to a convenient size for lifting, cutting well back all strong-growing roots. Before replanting the trees, see that the soil directly beneath them is made quite firm, and allow 2 inches or 3 inches for sinking. When finished, give the soil a thorough watering and syringe the foliage two or three times a day. Trees which have been very much disturbed at the roots should be shaded till they have recovered from the check.

Plants Under Glass.

Tulips.—To be successful with the forcing of Tulips, the bulbs must be potted as soon as they can be procured. When potted, plunge them in ashes in the open. Some of the most useful varieties for pot culture are the Duc Van Thols, Proserpine, Vermilion Brilliant, Mon Trésor, Rose Gris-de-lin, Pink Beauty, Prince of Austria, La Candeur and Murillo. For late flowering some of the Darwin varieties are excellent. Clara Butt, Orange King and Mr. Farncombe Sanders may all be relied upon for this purpose, but they must not be forced too hard.

Narcissi.—These must also be potted early if they are required to flower early. Varieties of known merit must be selected for forcing, or disappointment will follow. Paper-White, Golden Spur, Emperor, Empress, Sir Watkin, Mme. de Graaff, Barrii conspicuus, Mrs. Langtry, Poeticus ornatus and Poetaz Elvira are all useful for pot culture. The latter variety must not be forced too early.

Liliums.—L. Harrisii and L. longiflorum may be potted singly into 6-inch pots, leaving room for a top-dressing of soil when the pots are full of roots. Place the pots closely together in a cold frame and cover them with fibre. When growth has commenced they may be placed near to the glass in a cool house.

Fuchsias.—Few plants are more useful than the Fuchsia for the summer decoration of the conservatory. A batch of cuttings should be rooted annually. Choose those shoots which are free from flower-buds and insert them in a sandy compost around the sides of 5-inch pots. Plunge the pots in a hotbed of moderate warmth, and shade them from bright sun till rooted.

Housing Plants.—The houses used for sheltering plants which are at present in cold frames must be prepared for their reception. The glass must be washed both inside and out. Such subjects as Cyclamen, Primulas, Bouvardias and Pelargoniums must be placed quite near the glass in a light structure. Admit plenty of air whenever outdoor conditions will allow.

The Flower Garden.

Border Carnations.—Where it is intended to plant these out in the autumn, the ground must be prepared at once. A heavy soil should have a quantity of light materials dug into it. Leaf-mould, burnt garden refuse, or old potting soil will considerably improve a heavy, retentive soil. A border facing south or west which does not

lie too wet will suit the Carnation. Here we find it best to pot up the plants and winter them in cold frames.

Next Season's Bedding.—Certain modifications and alterations are annually needed in the flower garden, and the present is perhaps the most suitable time to map out next season's programme. The months of July and August were continuously wet, causing many plants to make much growth and little flower. Antirrhinums were little affected by the rain, and now that they can be relied upon to come true from seed, they should be planted largely, as they revel in almost any kind of weather. Begonias, too, have done remarkably well, likewise Salvia Glory of Zurich and S. Blue Beard. Pelargoniums, except those which are planted in vases, have done badly, as is usual in a wet season.

The Hardy Fruit Garden.

Peaches and Nectarines.—The fruits must be examined carefully every morning and gathered before they are too ripe. The late varieties must be well exposed to the light, or they will fail to ripen perfectly. The trees which have been cleared of their fruits may have all the old fruiting wood removed, except that which is required for extension. This will help the remaining young wood to ripen.

Apples.—The varieties which are perfectly ripe must be gathered, or many of the fruits will be spoiled by insects. Most of the early cooking sorts should be gathered by this date. They will keep best in the fruit-room. The latest varieties must not be gathered before they are ripe, or they will not keep well. The seeds of the fruits should become brown before it can safely be said that the fruits are ripe enough to gather.

The Kitchen Garden.

Potatoes.—The continued wet weather will, no doubt, favour disease, especially on heavy land. When the haulm has ripened, lose no time in burning it. If the crop is ready for lifting, this should be done at once and the tubers placed carefully in their winter quarters.

Cabbage.—When the plants of the first sowing are large enough to put out, let this be done before they become drawn. Plant about 15 inches apart each way. An open situation is the best on which to plant Cabbage at this time of year. To promote healthy growth, the soil must be moved with the hoe at regular intervals.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

Plants Under Glass.

Violets.—If the best results are to be obtained with Violets during winter, it is essential that they become well established in their flowering quarters before the very short days arrive. Plenty of light and abundance of ventilation are the two chief factors. Artificial heat is not necessary. Before commencing to lift the plants, the soil in the frames should be brought up to within 6 inches or 8 inches of the lights, where double varieties are to be planted; and in the case of single sorts, such as Princess of Wales, it will require to be left about a foot from the glass. The plants should be lifted intact with a good ball of soil, and watered well after planting. The frames must be shaded and kept shut for a few days, using the syringe freely in bright weather. Afterwards remove the lights until severe frost or heavy rains compel them to be put on again.

Chrysanthemums.—Any forward plants which have buds showing colour will be better removed indoors to a well-ventilated greenhouse, whatever the weather may be, as either rain or dew will tend to cause the petals to damp. Feeding should be discontinued when plants reach this stage. If mildew is troublesome, sulphur must be applied.

Malmaison and Tree Carnations must be given all the light possible, and not be shaded unless they show signs of flagging. Although abundance of air

is necessary, it should be seen that the temperature is not allowed to drop below 50°. During cold nights more heat should be turned on, and the ventilators slightly opened to prevent a stagnant or too damp atmosphere.

Permanent Shading on most glass houses can be removed, unless there is any prospect of continued sunshine, when it may remain a few days longer. Blinds need not be taken down yet, as they are sometimes needed during the middle of the day when the sun is most powerful.

The Kitchen Garden.

French Beans.—The late-sown crops will need some protection in the event of frost coming, as a very few degrees are sufficient to ruin the plants. Frames are best and more easily handled, but mats or other light covering materials are generally sufficient protection from the slight frosts which usually occur in late September and during October.

Tomatoes which have been growing outdoors in pots must be removed under glass, where they will have better conditions for ripening their fruit. Ample ventilation must be given. Continue to give additional food to assist in the swelling of more fruit.

Onions.—If the weather should be wet, it will be best to put all Onions under cover in some open or well-ventilated shed. Should fine weather prevail, the Onions will benefit from lying exposed to the sun several days before being taken indoors.

The Flower Garden.

Naturalised Bulbs in Grass.—Most Narcissi are quite at home when planted in grass where they can be allowed to mature their foliage. The present is the best time to plant, before the rush of spring bedding time arrives. To get the best effect they must be planted in bold masses of separate varieties, and not in formal clumps.

Seeds.—Where seed of annuals or any flowering plants has to be saved, care should be taken that it is secured in dry weather and before any has been allowed to drop. After gathering, expose to the sun outdoors for a few hours each day to get it thoroughly ripe and dry.

Propagation by cuttings of practically all plants required must be hastened before the season gets too far advanced. Cuttings already rooted must be given an abundance of air. In many cases the lights are better removed altogether, only using them during heavy rains or when frost threatens.

The Hardy Fruit Garden.

Plums.—Where the crop is very heavy, the quality of the remaining fruit will be much improved if the trees are relieved of a number of the fruits before ripening actually takes place. These, although not ripe, can be used in the kitchen. Particularly does this apply to free-bearing varieties, such as Victoria. It is an excellent Plum for bottling before it is quite ripe.

Fruit Under Glass.

Strawberries in Pots.—The earliest-potted plants are developing their crowns, and where very early fruit is required, a selection should be made of the best for this purpose. Every encouragement should be given to aid development by keeping off all runners and applying food judiciously. In very wet weather it sometimes becomes necessary to lay the plants on their sides until the rain ceases, otherwise they become waterlogged and thereby injured.

Peaches and Nectarines.—Most trees having now been cleared of their fruit, every encouragement should be given to assist in the thorough ripening of the young wood. Plenty of ventilation is necessary. With increased ventilation and the fully developed foliage the trees at this season absorb an enormous quantity of moisture at the roots, so that where, earlier in the season, a watering would have served the trees for a month, it may now be necessary to apply the same every ten days or a fortnight. Neglect of this means bud dropping and consequent failure of next year's crop.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

THE BULB ORDER IN 1915

BY THE REV. JOSEPH JACOB.

ONE of the annual events of the gardener's year is, in all well-regulated establishments, the making out and the giving of the bulb order. That term, by general consent, is understood to refer primarily, at all events, to the flowers of winter, spring and early summer, whose resting states are bulbs, corms, or, less frequently, tubers. The bulb catalogues arrive from various parts of Great Britain, Ireland and Holland. Lists are carefully made out and the orders duly despatched.

This autumn, however, presents an entirely new factor, which must be taken into consideration. It is nothing less than "Should a bulb order be given at all?" In other words, "Must doing without bulbs be one of my economies?"

I hold no brief for the dealers, but the following considerations have convinced me that the proper answer to the question is "No, certainly not; but (and I fear it is a big 'but') no money should be sent out of the United Kingdom."

However well in times past foreign firms have served us, in this period of stress and strain we *must* husband our resources and keep all the money we can at home. Let us leave it to our *dealers* to do all the necessary buying from elsewhere; but *let amateurs give all their orders to their own countrymen*. No one knows what money may yet have to be found for the war, but whatever it is, we will have to produce it *ourselves*. Hence, if an order is to be given, we must buy at home.

Again, few people, except those who have actually been brought into personal contact with its manifold operations, know what carrying on a bulb farm means. The labour entailed is very great, for the yearly round of lifting, sorting and planting must go on. The picture of a scene I witnessed last July at Messrs. R. H. Bath's at Wisbech gives one an idea of what has to be got through and how it is being accomplished. Luckily for them, they have been able to get women to do a great part of the work, but female labour is almost as costly as male, and to satisfy its just claims money has to be found. That money must come either from a depletion of capital or the profits on trading.

Once again, take the position of our horticultural firms. Their profits are dependent on the sales of seeds and bulbs. Take this latter source away, and "carrying on" becomes a very serious problem, more especially when it is borne in mind that supplies have been purchased to meet a presumed demand. Hence, wherever possible, let some sort of an order be given. Any pleasure that the flowers bring will be intensified when it is remembered that the money spent upon them has helped with the wages.

Lastly, suppose a decision has been made to buy, as I hope it will have been, the problem will be how to make one pound go as far as two. It will accordingly be good news to hear that both Hyacinths and Darwin Tulips are much reduced

in price, and that with regard to most other bulbs the same is true to a lesser extent.

This will be one help. The only other thing to be done is to buy cheap varieties. Some of the best Hyacinths, Tulips and Daffodils are among the lowest in price. Readers of THE GARDEN know the name of Mr. E. M. Crosfield. We were standing before *Thalictrum diptercarpum* at the last Holland House Show. Had he got it? "I never buy a difficult thing." Now, if ever, with the labour shortage must we avoid difficult things. Now, if ever, must we go in for whatever is easiest to manage and whatever will grow with a minimum of care. Very many cheap bulbs not only fulfil these requirements, but are pleasing in themselves. Appended are a few suggestions which may be useful.

Hyacinths.—Grand Maître (porcelain blue) and Schotel (light blue). General de Wet (pale pink) and Lady Derby (rose). L'Innocence (pure white) and Princess Metternich (double blush).

Early Tulips.—Rose Gris-de-lin (rose and white), Thomas Moore (orange and terra-cotta,

Second List: White Lady, Blackwell, Horace, Lucifer, Glory of Leiden and Mme. de Graaff.

I have in both lists only indicated varieties which are good doers and which in any good garden soil will take care of themselves.

KNIPHOFIAS OR TORCH LILIES.

THESE plants are known by various names, such as Tritomas, Torch Lilies and Red-hot Pokers. They are of great value as hardy border plants, and deserve to be much more extensively grown than they are by amateur cultivators. Usually one sees them grown in huge clumps, and very effective they are; but when left to attain to large dimensions, the centre portion becomes exhausted, and this deterioration results in a shortage of flower-spikes and in diminished strength and brilliancy of colour of those that grow.

Where space is available, a grand effect is obtained by grouping the Pampas Grass, the Kniphofia and *Prunus pissardii*, the latter as standards 18 feet apart, the Pampas Grass and Kniphofias filling up



A VIEW OF MESSRS. R. H. BATH'S BULB FARM AT WISBECH.

good for cutting especially), Artus (red, fine for bedding), Prince de Ligny (yellow, for cutting), Yellow Prince (yellow) and Prince of Austria (orange scarlet).

Darwin Tulips.—The following are a real good cheap six: Fra Angelico (dark shining maroon), Clara Butt (pink), King Harold (maroon), Baronne de la Tonnaye (rose, edged blush), Margaret (blush with pink interior) and Pride of Haarlem (cerise). If a more brilliant colour is wanted than that of King Harold, Loveliness (a pretty, clear rosy scarlet) might be substituted.

Daffodils.—Perhaps the most useful thing to do will be to give the names of six varieties, none of which costs more than a shilling a dozen, and then a second list of six which might be used to supplement the first and which are rather more costly, but none of which exceeds five shillings for twelve.

First List: Emperor, Empress, Barrii conspicuus, Sir Watkin, Aspasia and Poeticus recurvus.

the available space in such a way as to allow of every specimen being distinctly seen. Large beds on lawns or park grounds, measuring 50 feet or more across, are the most suitable for arrangements of the kind referred to. In hardy plant borders small clumps are desirable; individual plants should be planted 1 foot or a little more apart. Three and five plants, respectively, would form smaller clumps, and all should be lifted and replanted after the soil has been trenched, before they get very much matted together. These plants possess immense masses of roots and thrive best in a deep, light loam.

The following Kniphofias are good varieties to plant: *K. grandiflora*, *K. grandis*, coral, shaded orange; *K. nobilis*, scarlet and yellow; *K. Sandersonii*, orange red; *K. Leichtlinii*, vermilion red and yellow; *K. Northia*, pale yellow and tinted red; *K. carnea*, yellow; and *K. præcox*, scarlet and yellow. The last two are splendid for autumn flowering.

AVON.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

The Hardiness of *Salvia rutilans*.—The Pine-apple-scented *Salvia* is a very attractive plant, either grown indoors for its bright red flowers or planted out in the summer for the sake of its Pineapple-scented leaves. It is grown here for the latter purpose, the plants being thrown away in the autumn like other half-hardy plants. Last autumn, however, a few plants were allowed to remain in the ground in a small detached garden chiefly planted with scented flowers. I was much surprised in the spring to find that these plants had survived the winter and were making young growth. The little garden is sheltered from the north by a hedge. The winter was an open one, but we had 12° of frost or more on one or two occasions. —CHARLES COMFORT, *Broomfield, Midlothian*.

Recipe for Bottling Green Figs.—In your issue of August 21, page 408, "C. E. C." enquires whether any reader can give recipes for the bottling of green Figs. I find Figs can quite easily be preserved by the sterilisation process, provided the vacuum bottle is used. In proceeding to bottle Figs, gather them before they are quite ripe, unripe fruit being better for this purpose. Pack them firmly in the bottles by pressing them down with a glass rod about 12 inches long, and cover with cold water up to the neck or shoulder; then adjust the rubber rings, glass stoppers and spring clips. The bottles and contents are then ready for sterilising. Place them in any vessel with a false bottom and cover with water. The vessel should then be put over a fire and the temperature raised slowly—never more than 2° per minute—until it reaches 150° Fahr. After the temperature has reached 150°, let it remain at this for an hour, when the bottles are then ready to store away in a dark cupboard. When a syrup is used to cover the fruit, dissolve 1lb. or 2lb. of sugar in a quart of cold water; sugar should never be placed among the fruit undissolved, or the result would be a cloudy liquid. When dissolved, before pouring it over the fruit, the liquid will be quite clear and transparent after sterilising. Sometimes Figs and other fruits become dark in colour and the liquid cloudy, which is due to the bottles not being hermetically sealed, or it may be owing to the temperature having been brought up too rapidly and too high.—G. W. STUART. [Green Figs may also be made into a delicious preserve, as explained by our correspondent "H. T. C." in THE GARDEN, of last week, page 433.—ED.]

Rambler Rose Debutante.—The *Wichuraiana* Rambler *Debutante*, although not a novelty, is not well enough known as a Rose for arches. It is charming on a pillar, but its true place is on an arch. The delightful pink flowers are in large bunches, and the slenderness of the branches on which they are borne makes these droop in the most elegant way from the arch; in fact, a keen flower authority said in the writer's presence that the habit of growth when in flower reminded

him of that of the *Wistaria*. It should be mentioned that this habit renders it necessary that the arches should be of good height, otherwise the pendent flowers would be in the way of passers along the path. *Débutante* is very lovely, and one of the freest flowering of a floriferous section of *Roses*.—S. AYE.

Double White Poeticus Narcissus.—I have a small patch of this lovely flower, and the plants passed out of blossom the end of the first week in June. They might with advantage, I claim, be more freely planted in gardens, for they are most valuable for cutting, and scarcely any flower is more sweetly scented. The snowy whiteness of the blossoms as noted in groups or drifts is very telling. *Gardenia*-like and *Gardenia*-flowered are terms used—and rightly so—to denote the purity and beauty of this *Narcissus*. To get good flowers it is necessary to plant in thoroughly deep, good soil, and to see that the bulbs when growing do not suffer for want of water, otherwise some of the buds go blind and do not open. A further help to their successful management and prolongation of flowering is to plant the bulbs in a cool position. A north border, if the flowers are to be grown

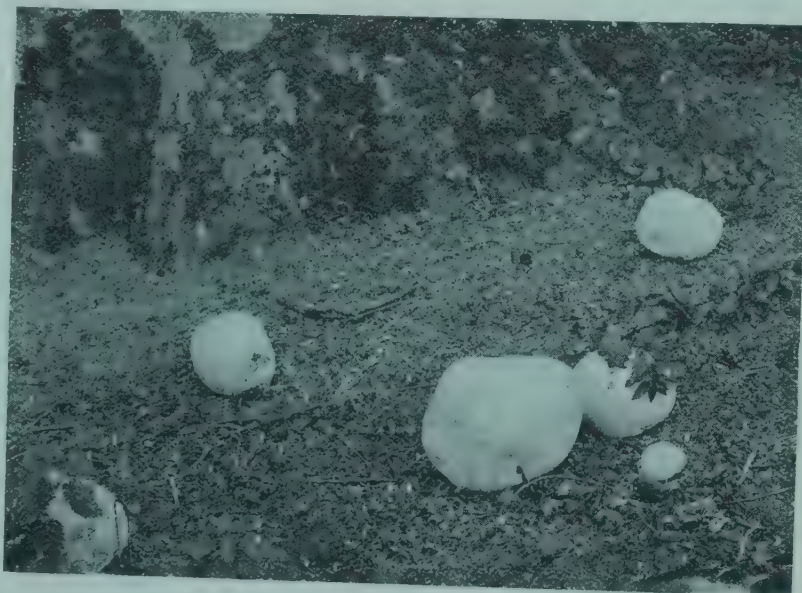
when in flower, so lovely is it at other times. It does well here on rockwork, or, better still, on a limestone moraine.—S. ARNOTT, *Dumfries*.

A Neglected Article of Food.—Now that economy in housekeeping is a subject that is before most of us, may I utter a protest against a form of egregious destruction and waste, and incidentally put in a plea for a very cheap and wholesome food? Just at this time the Giant Puff Ball (*Lycoperdon giganteum*) is at its prime and offers many excellent and inexpensive meals to country dwellers; but it is seldom indeed that its merits are appreciated. Our school-children are instructed as to the history of alligators and giraffes, but of the practical gifts of Nature that lie outside their own doors they are taught nothing. As I write, the fragments of a splendid Puff Ball, that might have provided a free meal for a family, lie on the road outside, where someone has trampled it under as "rank p'isen." This fungus, if picked while it is young and white fleshed, is perfectly wholesome, and, if cut into slices and fried, it makes a delicious and satisfying dish. Care, however, must be taken not to eat it when the flesh shows a yellow tinge.

Curtis wrote, "It has not the high aroma of some others, but it has a delicacy of flavour that makes it superior to any omelette I have ever eaten. It seems, furthermore, to be so digestible as to adapt itself to the most delicate stomachs. It is the South Down of mushrooms."—MAUD D. HAVILAND, in *Country Life*.

Shirley Poppies.—The methods for making these lovely flowers last in water, given on page 421, August 28, are good, but an even more excellent way is to gather them when the buds stand up straight on their stems and put them in the vases, where they will open in the course of the next day, and remain in good condition for nearly a week in rooms where there is no gas; or, if first stood up to their necks for a few hours in a tall jug full of water, they can be packed and posted to friends with most satisfactory results, especially if sent by the evening post to arrive at their destination the next morning.

I greatly delight in Shirley Poppies, and every year when they reappear I breathe a blessing on the name of the Rev. W. Wilks, who has added so great a gift to my garden. I sow them thinly broadcast, mixed with blue Cornflowers, round clumps of the old-fashioned striped Ribbon Grass. This autumn I intend to steal a few of my donkey's Oats to sow with them (I do not think Angelina will miss them) in the long border, where I (holding the same views as the Rev. J. Jacob and old Mother Nature) mix up annuals, biennials and perennials, so my Queen Anne border shows some flowers almost all the year round. I hate bare spaces of brown earth, and (still following Mother Nature, always try to cover them up as quickly as I can. In a very hot sunny border I let Creeping Jenny run round the roots everywhere; it makes a lovely low carpet of green and gold, keeps the soil cool and moist, and clashes with nothing, and when I want to plant anything I simply clear a space. Of course, I know this is absolutely shocking from a gardener's point of view, but it is successful and satisfactory in fulfilling the aim of—ANNE AMATEUR.



GIANT PUFF BALLS. NOW AT THEIR BEST, OFFER A SATISFYING DISH TO COUNTRY DWELLERS.

for cut purposes, is an ideal place, and the same aspect should be secured in the pleasure ground by planting on the northern side of trees or hedges.—C. TURNER, *Highgate*.

***Saxifraga paradoxa*.**—A good deal of time has been spent in the endeavour to put the Saxifrage known in gardens as *Saxifraga paradoxa* in its precise position, but it cannot be said that "the best" authorities agree on the question. Garden-lovers will, therefore, content themselves with calling this Saxifrage simply *Saxifraga paradoxa*. It will be prized for its beauty at all seasons. It is one of the neatest and daintiest of a class of Saxifrages of wonderful beauty—the Silvery Rockfoils, of which there are legions of species, hybrids or varieties. It makes nice, medium-sized rosettes of narrow, symmetrically arranged leathery leaves, all daintily braided with silver in the most exquisite way, so that a study of a plant composed of several rosettes gives a most pleasurable feeling. The flowers are a little disappointing, as the white petals are dulled by the yellowish colouring at and towards the base. But *S. paradoxa* can afford to be less beautiful than many of its sisters

HINTS ON TABLE DECORATION.

THE decoration of tables is a genial task, as it is not one of those that are governed by any hard-and-fast rules. In fact, the more the changes, the more is the operator's work likely to be appreciated. It is often said that anyone can do decorating if they have at hand the necessary items. This is true to a certain extent, as the mere act of placing flowers in water will serve to answer their purpose. But to decorate lightly and with effect can rarely be accomplished in this manner, though it must be acknowledged that at some of the leading exhibitions where table decoration is much in evidence, this haphazard method often finds favour. This is to be regretted, as it is very misleading in more ways than one to those who visit flower shows not merely for pleasure, but for education, as in actual practice the style sometimes adopted would never be permitted, for very often one is led to believe that everything must give way to the flowers, which is just the reverse of what is necessary.

In decorating a dinner-table it is not necessary to employ a quantity of flowers, as the effect is more pleasing when they are lightly arranged, and any overcrowding tends to prevent this. As a general rule, anything is to be avoided that obstructs the view across the table, as for obvious reasons the diners prefer to see one another. Therefore, whatever receptacles are used for the centre, they should be either low enough to be easily seen over, or tall enough to allow of a clear view beneath them. In the majority of cases tall receptacles are only essential when the table is a very long one, when perhaps three may be necessary, and for the intervening spaces some smaller ones will be needful. The arranging of these centre-pieces is considerably simplified when the branching type of flower-holder is favoured. They are also made in smaller sizes, and are very convenient for the positions suitable to them. When these are employed, much labour is saved in wiring the flowers; in fact, the entire process presents none of the difficulties that the ordinary vases and bowls do, as the tubes are arranged at different heights to set each flower to its best advantage.

These, however, are not favoured by all. Many prefer the older type in silver and glass, in which case a little more care is necessary to place the flowers to give the best effect. Many varieties in winter, among them the Perpetual-flowering Carnations, require wiring neatly to hold them erect, even in narrow vases; while for bowls, in addition to this precaution, it is advisable to use the small flower tubes, packing as many as possible tightly in their places with some fresh green moss. This arrangement is better than the wire generally made use of, as there is no danger of the effect being upset if they are accidentally moved. With some flowers it is possible to use their own foliage, but where this is not convenient, Asparagus and Maidenhair Fern should be used. Sometimes it may be advisable to lay a few flowers and a small quantity of foliage on the cloth, but in so doing the temptation to be too extravagant must be avoided. A few trails of Smilax and a flower dotted here and there without having any set design is all that is necessary. Anything approaching stiffness should be avoided.

The lighter the style, the more charming will be the result. Generally speaking, a mixture of colours are not admired, as a more pleasing effect is gained by the use of two or three, unless an exception be made during the autumn, when the foliage is at its best. At this period of the year red is always admired, and if white be the only other colour used, a charming contrast results.

Pink in its various shades is always pleasing under artificial light, and very often it requires no other colour beyond the green of its foliage; but if another shade is desired, mauve is the best. In the choice of flowers, one is not lacking during the winter season with plenty of Perpetual-flowering Carnations and winter-flowering Begonias, which for all indoor work are quite indispensable. Wherever possible, a little of their own foliage adds much to the effect of these two. Poinsettias for their brilliant scarlet are most valuable, while Salvias and the scarlet Plumbagos are equally so, the latter, especially to associate with Roman Hyacinths, being particularly pleasing. Azaleas and Camellias are useful for laying on the cloth, and when the table is a large one the arching spikes of Odontoglossums and Calanthes are seen to good effect. Forced bulbs, especially the earliest Tulips and Narcissi, one finds useful, while the charming Lily of the Valley is quite indispensable. Well-berried sprays of Holly are appreciated, but they must be very small. A good plan to secure the same effect is to take the single leaves and stick the berries on the spines. These, when placed at intervals on the cloth, are generally admired.

F. J. TOWNEND.

The Gardens, Brentwood, Moorgate, Rotherham.

BOOKS.

Fungoid Diseases of Field and Garden Crops.*

—The title of this book may be misleading to many, for it does not deal with garden plants as the ordinary amateur knows them; there are none of the diseases of the Rose, the Carnation, the Hollyhock, the Lily and so on that so often worry us, nor do Lettuce, Spinach, Onions, Celery and several other garden crops very commonly grown find any mention. On the other hand, there is a chapter devoted to the fungoid diseases of animals. The bulk of the book is given up to an account of the diseases of the Potato, grain crops, leguminous plants, the Cabbage family, and Beets and Mangels, and is therefore much more concerned with the farm than with the garden.

The early part of the book (pages 1 to 38) gives an account of fungi in general and their relation to other members of the vegetable kingdom, the making of sprays and their application, and the conditions favouring the spread of these diseases. Only one statement in this part of the book calls for criticism. We read that soda-Bordeaux mixture offers no advantage over ordinary Bordeaux mixture, and that therefore no recipe for the making of it is given. It has this very great advantage, to gardeners at any rate: the materials can be purchased anywhere in the kingdom, and they offer no difficulties in storing, such as quicklime does. If the same care is exercised in mixing the ingredients and in testing the mixture as is essential in the making of ordinary Bordeaux mixture, the making of it presents no difficulties, and the results obtained by its use seem to be at

* "Fungoid Diseases of Field and Garden Crops," by T. Milburn and E. A. Bessey. 8vo, xii. + 118 pp. London: Longmans, Green and Co., 1915; price 2s. net.

least as good as those got by the use of that most generally useful mixture. It is made by dissolving in soft water, in separate wooden vessels, 9½ oz. of copper sulphate and 110 oz. of washing soda. The two solutions, which must be cold, are then mixed, and the mixture made up to three gallons with soft water.

Turning to the later chapters of the book, we find that the main diseases of farm crops are reviewed, the symptoms, causes, and preventive and remedial measures all coming in for their share of attention. We find, however, a certain looseness of expression here and there, which will be confusing to those who know nothing of the subject of which the book treats; e.g., in the section dealing with club-root of Cabbages, we read that the symptoms of the attack are: "Abnormal tuberous swellings appear, of no fixed form, which gradually become rotten and give off a very disagreeable smell. While this is going on, the leaves lose their waxy bloom and healthy green appearance, turning yellow and stunted in growth. Finally, the whole root and leaves may become one mass of putrefaction." We might criticise this on several points, but one will suffice: we are not told where these swellings occur! In the preventive measures recommended for this disease we find an admirable list, but the most important one of them is inadequately dealt with. After stating that the disease is most prevalent on sour land, we are directed to apply "about 2 tons or more of lime per acre, immediately the Turnip crop is removed, and extra quantities where the disease was worst. Gas lime is of little value for the purpose." Turnips are not the only crop to suffer, even on farms. Our own experience teaches us that gas lime (even when it can be obtained) is of no value whatever for this purpose, and the only form in which lime is of value in this connection is that of fresh burnt lime, quicklime, live lime, unslaked lime, builder's lime, or stone lime as it is variously called. This surely ought to have been made clear, for there is no worse disease in gardens than this, and probably none more prevalent.

Turning now to the diseases of Peas, we expected to find some mention at least of the streak disease which has spread so much during recent years, but are disappointed. Similarly, we thought to find mention of the value of potash manures in strengthening plants against the attack of fungi, e.g., Beet rust, but we cannot find it.

On the whole we think this book will prove of value to those concerned with farm crops; but the almost entire absence of reference to fruits (Gooseberries are mentioned once, but not referred to in the index), flowers and many common garden vegetables reduces its value very greatly as an aid to gardeners.

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

Offices: 20, Tavistock Street, Covent Garden, W.C.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

HERBACEOUS PLANTS FOR CLAY SOIL (Susan).—If the soil is well cultivated, i.e., trenched 2 feet deep, well manured and limed at the outset, a clay soil over a gravel subsoil will suit many things, and in such we should without hesitation plant Delphinium, Phlox, Flag and other Irises, Sunflowers, border Campanulas, Peonies, Pyrethrum, Potentilla, Eryngium, Echinops, Kniphofia (Red-hot Poker), Michaelmas Daisy, Day Lily, Globe-flower, Gaillardia, Pentstemon, Rudbeckia, Helenium, such Lilies as candidum, croceum, umbellatum, Hansonii, excelsum, colchicum, tigrinum in variety, and, indeed, any of the stronger-growing types of these plants. In semi-shade, Hepatica and Christmas Rose should do well. Of bulbous things, Crown Imperials, Alstroemeria aurea (if given a place apart), English and Spanish Irises, and strong-growing Daffodils as Emperor, Sir Watkin, Barrii conspicuus, Mme. Plomp, Mme. de Graaff, maximus, with many others. Make a good start, and there should be little cause for failure.

WALL FLOWERS (E. H., Oxford).—It would have been helpful had you given the height and extent of the walls for which the plants are required. Walls of crumbling cement and limestone are rare, and we can only assume that the cement was of very poor quality and very much in the minority. Cement is, however, ill-suited to vegetable life generally, and if the walls through and through are formed of this, it would be well to make holes and insert a little soil to give the plants or seeds a start. If the walls are high, 7 feet to 8 feet or more, good effect could be secured by grouping, i.e., setting out one kind of plant thinly over a superficial area of 3 feet or more, so that when established a naturally formed colony would result. By repeating this in distinctive colours, whether of harmonious or sharply contrasting lines, a good effect may be secured. The best planting time is early autumn, September or October. You have not stated the aspect of the wall, which is important. The plants named, however, are suited for sunny walls, and if yours are not so circumstanced, you had better write us again. If the walls are quite vertical and were originally built as boundary or other fences, some little trouble may be experienced in establishing the plants, though in the case of moderately large building blocks of stone this would be modified. Aubrietia Dr. Mules (royal purple), A. Lavender, A. Moerheimii (pink), and A. Prichard's A. 1 (purple) are distinct. These would be best obtained in plants of distinctive colours are required. Any of the alpine Pinks, *Dianthus deltoideus, D. caesus, D. alpinus and others, Achillea umbellata, A. Huteri, A. Clavennae, and A. serbica (white leaved and white flowered), Corydalis lutea (fern-like foliage, yellow flowers), *Erinus in variety (lilac, white, &c.), *Iberis sempervirens (white), *Alyssum saxatile (yellow), *Wallflowers, *Antirrhinum, *Centranthus ruber and Campanula muralis all flower during spring and early summer. There are many others flowering later, however. Where plants are used, small pieces are best. Those marked by an asterisk may be introduced by means of seeds, which should first be mingled with a little moist soil, and in this way inserted into crack or cranny.

FRUIT GARDEN.

CORDON APPLE TREES DISEASED (Fraser).—The trees have been very badly attacked by winter moth. Spraying with lead arsenate next spring—the end of April will see the eggs hatched in the position you name, in all probability—will be the best method of dealing with them.

PEAR TREE DAMAGED (Mrs. A. C.).—It is as you say most extraordinary that the tree should have been damaged so thoroughly and so suddenly, and we cannot but think that some poisonous matter must have found its way to the tree, either poisonous fumes or weed-killer, or something of that sort. The appearance suggests fumigation with sulphur or something equally deleterious.

MISCELLANEOUS.

LITHOGRAPHIC LIMESTONE AS A FERTILISER (J. D.).—You may use the powdered stone for any purpose

for which powdered chalk may be used, but its actual fertilising value is small.

TRANSPLANTING RHODODENDRON (Rhodes).—The work could be done early in October or somewhat before that period. These plants prefer heath soil, and where this does not exist naturally, a mixture equally of finely broken peat, with leaf-soil and loam, is the best. Of this it would be well to make a bed 3 feet or so across and not less than 2½ feet in depth. In such a soil, rightly placed, a good growth should ensue next summer with a flowering to follow in 1917. The flagging you refer to might prevent the forming of flower-buds this year. If so, no flowers will follow next summer.

PLANTS FOR SMALL ROCKERY IN GREENHOUSE (Learner).—Achillea argentea, Arenaria balearica, Campanula pusilla, C. gargarica, C. fragilis, Draba aizoides, Erodium supracanum, Gypsophila cerastioides, Heeria elegans, Helxine Solierii, Herniaria alpina, Cotula dioica, Linaria alpina, Matthiola valesiaca, Onosma alba rosea, Pratia angulata, Raoulia glabra, Sagina glabra, Saxifraga Guildford Seedling, S. Alzoon rosea, S. A. balearica, S. paradoxa and S. apiculata, Sedum album, S. dasyphyllum and S. spathulifolium, Sempervivum Allionii, S. arachnoideum, S. Funckii, Silene acaulis, and Stachys corsica.

PRUNING ROSE DOROTHY PERKINS (J. Gibson).—This and most of the wichuraiana Roses should have some of the oldest growths entirely removed every year soon after flowering. Do not prune any laterals until March. Be careful to preserve all new growths, and it is a good plan to tie them out to rods so that they receive all the sun and air possible. You will obtain far better results if you relieve the plant of a good lot of the old growths, but, of course, you must not overdo it, as some of these old shoots are good for two or three years. All laterals on such old growths are best pruned fairly hard back in March, leaving the strongest laterals about 12 inches long and others in proportion to their vigour, even cutting some back to 2 inches or 3 inches.

NAME OF FRUIT.—J. M.—Plum Kirke's Blue.

NAMES OF PLANTS.—J. M.—Tall plant, wild Mignonette; we cannot name the other plant without a flower.

SOCIETIES.

GLASGOW AND WEST OF SCOTLAND HORTICULTURAL SOCIETY.

THE annual show of the above society was held in the Exhibition Hall, New City Road, Glasgow. It proved very successful and amply justified the directors in deciding to hold it as usual. Entries were almost equal to the usual, and the quality quite up to the high standard of this society's shows, and the large hall bore quite a brilliant aspect. Lady Stirling-Maxwell of Pollok opened the show, Sir John Stirling-Maxwell (president) presiding.

Trade exhibits were numerous and good. Messrs. Sutton and Sons, Reading, set up one of their effective displays of vegetables, and received a gold medal. Mr. W. Leighton, Glasgow, received a similar award for a charmingly arranged display of Carnations. Messrs. Austin and McAslan, Glasgow, sent a fine group of plants and flowers (gold medal). Messrs. John Forbes (Hawick), Limited, had a fine table of Phloxes, Carnations and other specialties.

From Messrs. James Cocker and Sons, Aberdeen, came a large display of Roses and hardy flowers (gold medal). Messrs. Hugh Dickson, Belfast, had Roses of their usual high quality (silver medal). Messrs. Hogg and Robertson, Dublin, exhibited Gladioli, &c., in many fine varieties (silver medal). Mr. D. McOmish, Crieff, staged hardy flowers. Mr. A. Brown, Blantyre, exhibited Dahlias and other florist flowers. Mr. W. Wells, jun., Merstham, set up a fine display of Delphiniums (silver medal). Messrs. Dobbie and Co., Edinburgh, exhibited admirable groups of Sweet Peas, Dahlias, and Roses, (gold medal). Good Roses came from Messrs. J. Fairley and Co., Cairneyhill, Fife. Messrs. Williamson, Gemmel and Co., Glasgow, showed an effective group of plants and flowers. Messrs. Allwood Brothers secured a gold medal for grand Carnations. Mr. John Hood, Beith, exhibited Pansies, Tomatoes, &c. Messrs. Blackmore and Langdon, Bath, sent their magnificent Begonias (gold medal). Mr. D. G. Purdie, Glasgow, showed plants and flowers (gold medal). Messrs. Sander and Sons had good Orchids (silver medal).

Pot plants were not so fine as in some former years, but, in many cases, exceptionally good plants were shown. Mr. J. Hood, Dalmore, Helensburgh, had the best group of plants; second, Mr. A. E. Davidson, Craignure. The other leading first prizes in this section were won by Mr. J. Templeton, Mr. T. Nelson, Mr. R. J. Clark, Mr. D. Halliday, Mr. W. P. Bell, Mr. C. Jenkins, Mr. T. McLean, and others.

The cut flowers were of grand quality, and in most cases the competition was very keen. In the leading class for Gladioli, Messrs. T. Mair and Son, Prestwick, had perhaps the finest twenty-four ever shown in Scotland. For twenty-four Roses, Messrs. Hugh Dickson led with beautiful blooms; for eighteen, Mr. G. A. Turnbull; for twelve, Mr. R. S. Aitken. Mr. R. C. Ferguson, Dunfermline, had the best nine vases of decorative Roses. Messrs. Hugh Dickson, Limited, were first for six vases of Roses. These classes were very fine.

Dahlias were well shown in all classes. In the leading one for Cactus, Mr. J. Smith led, Mr. Smellie being first for twelve vases. The best Collarettes came from Mr. J. Paul, and Mr. G. A. Turnbull had the best Pompons. Carnations were excellent, Mr. J. Smellie being first in the largest class.

Sweet Peas were great features, Mr. J. Smellie winning for eighteen vases. The Scottish Challenge Cup of the National Sweet Pea Society was won by Mr. James Paul. Mr. J. Smellie was first for twelve vases of early Chrysanthemums.

Mr. C. Shaw led in a good competition for twelve vases of herbaceous flowers and for twelve vases of flowers from the open border.

Mr. G. A. Turnbull had the finest twelve vases of annuals.

Begonias were superb, Mr. R. Watson having the best twelve blooms.

Pansies and Violas were numerous and good. Mr. A. Ollar was first for twenty-four Pansies and twenty-four Violas.

Baskets and bouquets, were fine as a rule.

Mr. D. Kidd, Carberry Tower, had the best decorated dinner-table.

Fruit was a magnificent display in almost every class. Mr. W. Brown, Houston, won first prize for twelve dishes in twelve varieties. Mr. J. Middleton, Callender House, led for eight bunches of Grapes. The finest collection of Pears came from Mr. A. Harvey; of Plums, from Mr. W. A. Staward; of Apples, from Mr. D. A. McIntosh, Rathgar, Dublin.

Vegetables constituted an outstanding feature, and Mr. C. Shaw's winning collection could hardly be surpassed. Mr. J. Devoy was first for the other collection.

We regret that the exigencies of space prevent further details of this grand show being published.

OBITUARY.

JOSEPH POWLEY.

THE funeral took place on August 28 at The Rosary, Norwich, of Mr. Joseph Powley, one of the old school of gardeners, whose prowess as a grower and an exhibitor was well known in days gone by. He left private service and started as a market grower at The Nurseries, Philadelphia Lane, Norwich, in 1881. Mr. Powley was well known among horticulturists throughout Norfolk and district by the fact that he was assistant secretary of the Norfolk and Norwich Horticultural Society from 1887 to 1913, and president of the East Anglian Horticultural Club from 1898 to 1909. Of this latter club he was one of its earliest promoters, and to the last took the keenest interest in every phase of its work. His experienced knowledge and advice were always at the disposal of the committee, and he liberally augmented its prize funds. During the past year he had been suffering from a malady which confined him to his house. He will be greatly missed by the gardening fraternity in the district. At the graveside, to pay a last respect, were a large number of friends and horticulturists, among whom were Messrs. J. E. T. Pollard, G. Davison, H. Perry, R. Holmes, James Everett, A. Reeves, H. Batchelor, W. H. Woods, W. Cowell, F. W. Wilby, W. Shoesmith, W. Rush and W. L. Wallis.

The War Horticultural Relief Fund.—The National Rose Society at their last meeting voted the sum of £25 towards the War Horticultural Relief Fund which is being raised by the Royal Horticultural Society. May the hope be expressed that other societies will see their way to follow the lead the National Rose Society have thus given!—W. W.

Plum Allgrove's Superb.—It is interesting to note that this variety, which recently obtained a unanimous award of merit from the fruit committee of the Royal Horticultural Society, is a sport from the well-known and rich-flavoured variety Jefferson. It is an admirable dessert Plum, with large, deep purple fruits covered with a rich bloom. The flesh is juicy and of delicious flavour, while the tree is of robust growth, good habit, and free bearing. Both gathered fruits and trees, carrying heavy crops, were shown by Mr. Allgrove, Langley Nurseries, near Slough.

* * The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

THE GARDEN.

No. 2287.—VOL. LXXIX.

SEPTEMBER 18, 1915.

NOTES OF THE WEEK.

Gifts to the Gardeners' Royal Benevolent Institution.—It gives us much pleasure to announce that Mr. Joseph Rochford, a member of the committee of the Gardeners' Royal Benevolent Institution, has generously given to its funds the sum of £600 in War Loan 4½ Per Cent. Stock. This kind gift is unconditional, except that the interest therefrom is to be considered as Mr. Rochford's annual donation during his lifetime. The committee of this Institution also gratefully acknowledge the receipt of £20 from the committee of "Queen Alexandra Day."

Galanthus nivalis Scharlokii.—The Snowdrop family, in addition to species and sub-species, is also divided into colour classes, of which there are three—white, yellow, and green. That illustrated belongs to the "green" section, though its flowers are by no means wholly, or even largely, green in colour. The same is true of the "yellow" class. In both, however, there is a sufficient amount of the colour named to render their classification interesting. This variety is a comparative rarity. Snowdrops are lovers of cool places, affording pretty effects on grassy slopes, and delight in the root companionship of herbs and other plants. They should be planted now.—E. H. J.

A Fine Hardy Perennial.—A plant that well pays for its room is *Erigeron speciosus* *superbum*. With me it comes into bloom in June, the flowers lasting for weeks. Before they are quite past, new growth is pushed up, and a fresh crop of bloom follows after the old stems are cut away. At the present time (September 4) I have a plant carrying huge trusses of beautiful blue flowers, well over a yard high, and I believe I am correct in stating that this plant has never been without flower during the past three months.—T. A. W.

Rose Mme. E. Herriot.—One more season's trial proves this Rose to be one of the best of garden varieties. Truly this is perpetual-flowering. Directly one crop is past, new growth is made, with abundance of bloom even of richer colour as the autumn advances than that in summer, if possible. The flowers, too, when cut in a young state develop nicely in water. The foliage also is all that could be desired.

A Good Creeper for Warm Gardens.—*Solanum jasminoides* is a pretty climbing plant which produces its large clusters of starry white flowers in great profusion from August to November. It is

quite a common plant in Devon and Cornwall, and some fine examples can be obtained in other counties where a warm wall exists in a sheltered garden. Another good *Solanum* is *S. crispum*, which has blue flowers, and is well adapted either for a south or south-west wall. It is a strong grower and requires fairly hard pruning in November.

A Free-Flowering Violet.—For continuous flowering few Violets can equal *Viola Rydbergii*, a little-known species from North America. The

ties to be grown for trial must send thirty seeds of each variety, placed in a plain packet which is enclosed in another packet. The outer packet must bear the sender's name, also the name or description of the novelty and colour. A fee of 2s. 6d. must accompany each trial and should reach the secretary, Mr. Henry D. Tigwell, not later than October 1, 1915.

The Danger of Elm Trees.—On the afternoon of September 10 a young man, H. Littleton of North Road, Kew Gardens, was killed by the falling of a branch while sitting under an Elm tree. The branch broke with a short fracture from near the top of a very large tree of *Ulmus major* in Kew Gardens near to the Cumberland Gate. The dangerous nature of the Elm is only too well known, and it is a matter for surprise that at Kew, of all places, a seat should have been placed immediately under the largest Elm tree in the Gardens.

Tender Flowers at Hampton Court.—In the beds and borders of the historic gardens at Hampton Court are to be seen many tender flowering and foliage plants. These plants are all very well in their place—that is, in the stove or greenhouse—but they naturally appear very unhappy in the open borders. With an abundance of hardy herbaceous flowers in September, such as *Michaelmas Daisies*, *Kniphofias*, *Gladioli*, *Heleniums*, *Hyacinthus candicans*, *Salvia nemorosa*, *Mallows* in variety, *Phloxes*, *Scabiosa caucasica*, *Anemone japonica* and *Sedum spectabile*, all of which are grown at Hampton Court, surely there is no need to resort to the use of exotics like *Bougainvilleas*, *Exacums*, *Dracenas*, *Strobilanthes dyerianus* and *Acalyphas* that would be far happier under glass, and, to say the least, are instances of gross extravagance in the flower border.

The Crinums.—I was interested in the note on these plants, page 432, issue September 4, by Mr. George Bunyard. More of these plants should be grown than is the case at the present time.

Mr. Bunyard refers to their successful culture in the Southern Counties, and rightly so. In a Hampshire garden where the soil is fairly heavy and retentive of moisture, the Crinums are very well grown and flowered on gently sloping banks without any further drainage. Banks are not available, however, in every garden, but slightly raised beds form a good substitute. Some Bracken or rough litter is, in many instances, laid on the ground during the depth of winter. SOLENT.



A RARE AND BEAUTIFUL SNOWDROP, GALANTHUS NIVALIS SCHARLOKII. PLANT NOW.

flowers, which are white, slightly tinged with purple on the back of the petals, and have a conspicuous yellow eye with veins of rich purple, are borne in great profusion from early spring throughout the summer, and at the present time it is looking as gay as it has done at any other part of the season.

National Sweet Pea Society's Novelty Trials, 1916.—The above society will hold trials of novelties in 1916 as usual, and members who wish novel-

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Cotoneaster Simonsii as a Wall Plant.

This *Cotoneaster*, being of erect habit, is usually given a place in the shrubbery, where it thrives well and usually produces a good crop of its bright orange berries. It, however, yields its fruits most plentifully when grown on a south wall; moreover, the berries assume a much richer hue under these conditions. I have noticed this in a plant growing on the south front of a farmhouse near here, and the fact was again impressed upon me by seeing, in the early summer of this year, the United Free Church at Torphins, Aberdeenshire, having its south wall covered with this *Cotoneaster*, the plant being still thickly studded with its bright berries. (Here the birds usually make short work of the berries as soon as winter sets in.) On the north side of the church the *Cotoneaster* was holding its own with the Ivy, by means of which it was supporting itself to a height of about twenty feet; surely an unusual height for this plant.—CHARLES COMFORT, *Broomfield, Midlothian*.

Nepeta Mussinii.—The praise accorded to this homely plant on page 424, issue August 28, is richly deserved. Not only is it useful for the purpose named, but also for a variety of other purposes. I have carpeted a border of mixed Roses with it, and am well satisfied with the result. This year I filled a fairly wide border with Sweet William Pink Beauty, giving it a double edging of *Nepeta*. The combination and the floral results obtained were in every way so satisfactory that I shall repeat it when opportunity offers. It is valuable in the rock garden, and can be prettily associated with the pink *Tamarix*. In the herbaceous border it looks well when grown near a few clumps of pink *Heucheras*. But I think it looks prettiest of all in a dry wall, where it will form a thick drapery of a delightfully informal character. In a sunk garden where there are dry walls and where Roses abound, no better plant could be chosen. It can be propagated easily from cuttings in the summer or early autumn, either outside or in a frame. On our heavy soil I find the young plants do not thrive when planted in the autumn, so I make a point of rooting cuttings in a frame early in September and planting them out in April. It relishes dry conditions, and dampness of soil and situation must be regarded as an enemy.—WILLIAM F. ROWLES.

The Hardiness of *Viola bosniaca*.—In your issue of August 28 a correspondent asks if this charming plant is hardy in the North. As no one else has replied, and as I can partly answer the question, I write to say that I brought the plant through last winter; but it had been growing in the moraine all the summer and was covered with glass. I know it died out with a friend living close to the coast where the climate is less cold, but possibly damper; the soil in that garden is little better than sand. I think the colour of *Viola bosniaca* is better in the moraine (watered underground) than in richer garden soil, there being less suspicion of blue in the pink. The plant seeds itself and has to be weeded ruthlessly, else it would soon smother other things. The seedlings, I find, vary considerably in tone of colour, and only the best shade should be kept. I am using it this year as an edging plant, and it is a promising subject for this purpose, a big stock being

easily raised from cuttings or from seed. It is not an expensive plant now—I saw it listed at 6d. in one catalogue—and if planted in a suitable situation yields a large return. It has been described as a difficult plant to do well.—WILLIAM LOW, *Balmakewan, Marykirk, Kincardineshire, N.B.*

Recipes for Cooking Wild Rose Hips.

I think some of your readers may possibly be interested in these recipes. The "Form of Cury" was a roll of English cooking compiled about 1390 by the master cooks of Richard II., who had about two thousand cooks; it was a vellum roll containing 196 recipes. Out of this (modernised) is the following recipe for Saracen sauce: "Take Rose hips and clean them (by taking out the seeds). Take (the same amount of) blanched almonds, fry them in oil and bray them with the hips in a mortar. Boil them up with red wine, and put in sufficient sugar and powdered hot spices (such as ginger, pepper, &c.). Mix it stiff with rice-flour, colour it with alkanet, and serve." (This is to be used with meat, and can be diluted with chicken broth.) The next is a recipe for a tart of Rose hips (seventeenth century): "Take some hips, cut them and take out the seeds very clean. Wash them, season with sugar, cinnamon and ginger. Cover the tart and bake it, ice it, sprinkle sugar on, and serve it." Compote of Rose hips (this is sold by the bucketful in the Continental markets).—"Take a quantity of wild Rose hips, boil them down with as little water as possible till quite tender and mashy; then pulp them through a fine sieve. None of the seeds or hairs must go through (some people open the hips first and remove the seeds and hairs, and they wear gloves to do so, as the hairs are horribly irritating if they get under one's finger-nails). Add sugar in the proportion of three-quarters of a pound to every pound of pulp. Put the mixture into a preserving pan, let it boil up quickly until the sugar is entirely dissolved; then remove it from the fire and bottle it when it becomes coolish."—BORIS.

Destruction of Wasps.—A reader very kindly brings to our notice the following remedy for destroying wasps, which appeared in *Nature* of September 2. "You may be interested to know that while starting up a motor-cycle a few days since I accidentally discovered that benzol sprayed over a wasp instantly killed it. I tried the same experiment with petrol, with the same result. Knowing of two nests in the neighbourhood, I went that night and with a small oil gun injected two or three ounces of benzol into each nest. In the morning I found the two nests entirely destroyed. Next night I visited an open nest which had been partly destroyed by another means, and in which several hundred wasps were still living. They covered an area as large as a cheese plate, and on lighting them up showed signs of activity. One squirt full of petrol was hastily sprayed over them, and the whole lot were instantly killed. This method is so safe, simple and effective that I feel it should be generally known. The petrol or benzol acts entirely by vaporisation, and produces asphyxiation. It is not fired in any way."—A. H. MITCHELL, *Horn's Green, Knockholt, Kent*.

Violas from Layers and Cuttings.—I was somewhat surprised to read the recommendation of Mr. F. J. Clark, page 438, issue September 4, about propagating Violas from layers, and that portion in particular recommending the employing of the "long growths" for the purpose. Usually,

these long growths take a considerable time to root, and when rooted constitute indifferent and unreliable stock. Such growths cannot be other than old flowering branches, and as such would be more or less exhausted. Moreover, devoid as such growths usually are of the crow of latent eyes or buds with which the youthful unflowered branches are invariably endowed, their bases, it is next to impossible to secure healthy tufts these latter, with correct treatment, ensure. Again, these long growths are unnecessary, as the wealth of material suited to propagation at the centre of a plant plainly shows. Hence from more than one point of view they are not to be desired.

Nor is Mr. Clark quite up-to-date in recommending "October and November as the best months" to take cuttings, and he will probably be surprised to learn that for many years I made a point of planting my specimen beds during the first week of the former month—the only real way of ensuring an early flowering. The plants at that time were compact tufts of several shoots each, and were made possible by the following simple method. With the great flush of summer flower beauty past, the plants were pruned close back, divested, in fact, of all growth that had for months been flowering. The soil about the plants was pricked up, watered, and a mulch of rich soil added, finer soil of the same kind being lightly strewn into the centre. From this time the plants, failing rain, were watered almost daily, the result being, at the end of three weeks or so, a crowd of young shoots pushing freely. As a direct result of the mulching and watering to every one of these young shoots, root fibres were attached, and, a sharp upward pull detaching them, they were ready for transplanting. Thus, without the making of a single cutting, rooted plants were available in abundance in a month, and of a type—every one being of basal growth—that cannot be surpassed. In this way I have raised many thousands, all without the tedium that attends the making of cuttings. The system itself is not only good and sound and applicable to large growers and small; it is a great time-saver, while giving the operator the finest possible material for planting. By pulling out the most forward shoots as made, opportunity was afforded for a maximum production, the surprise being the number that was possible from a single plant.

Transplanted to a bed of sandy soil and cared for, the young plants soon made headway, and with new growth apparent were pinched back. This caused them to bush and make the "compact tufts" for October planting already referred to. By the end of the year these young plants were bristling with shoots over a 6-inch area, their progress often being a matter for surprise. By March the same plants were getting ready to bloom. I have even had them bristling with flower-buds while snow remained. An additional advantage accruing from the system is the hold the plants get on the soil, a hold which enables them to endure in times of drought. Mr. Clark is apparently taking his cuttings when most people have plants for sale, though it is in the interests of the general reader of *THE GARDEN* that I take exception to his remarks. The *Viola* or Tufted Pansy in its best forms is one of the finest hardy plants we possess. None is more suited to our gardens, none so prodigal of flowering or capable of giving so much for so little outlay, none more worthy, indeed, of our best endeavours.—E. H. JENKINS.

About Buddleia Colvillei.—In THE GARDEN of August 21 the statement is made that the above plant rarely flowers north of the Thames. As a matter of fact, this plant, if not so hardy as *globosa* and *variabilis* and its improved varieties, will withstand over 20° of frost without suffering. Unlike most *Buddleias* in cultivation, *Colvillei* does not flower here till five or six years old. When once the flowering period has been reached, the number of sprays increases annually. Unlike other *Buddleias*, it should, if necessary, have the lightest pruning, but is better left to itself.—ARCHIBALD BUCHAN-HEPBURN, *East Lothian*.

Treatment for Gentians.—Perhaps the conditions I named on page 397, issue August 14, are not so opposite as they appear, and the fact of planting *Gentiana acaulis* among lumps of sandstone may supply the moisture it requires, the stone holding the moisture for a considerable time. I so far have the same difficulty as Mr. Turner. I can flower *G. verna*, but not *G. acaulis*. I mean, however, to replant the latter on the plan mentioned as above.—ENTHUSIAST.

An Ayrshire Garden.—The accompanying illustration shows a small corner of our garden, which we are beautifying by replacing the edgings of wood with live edgings of Saxifrage, Thyme, Pinks and white Arabis. The Saxifrage in the picture is a yard in width and was greatly admired in the month of June. The stone edging encloses the Viola border, which is mixed with Carnations. On the rustic paling are Ayrshire Roses coming into bloom.—J. E. BLYTH, *Dalry, Ayrshire*.

Birds and Ripe Fruit.—Is "G. G." quite sure that birds are always the culprits? Personally I turn all my animosity upon the wasps. These insects put birds to shame when it comes to fruit eating. This season I could well spare a few Plums, but not content with these, the wasps attacked all my Apples, compelling me to pick them before they were nearly ripe, and have now started on my Pears. The pests do not wait for ripeness, for they are attacking the bullet-like fruits of Fertility, Louise Bonne of Jersey and other varieties. Dozens of wasp nests have been destroyed, yet the damage is heart-breaking. Messrs. Bunyard and Co.'s man informed me recently, that they have been swarmed with wasps, and this despite the destruction of nearly one hundred nests.—T. A. W.

Rose Alberic Barbier.—In THE GARDEN, August 28 issue, page 425, there is a very fine picture of *Alberic Barbier* from "S. S." with his appreciation of that splendid wickuraiana. My own specimen, which I procured as a small rooted cutting from an uncle in Hampshire a few years ago, has proved to be a perfect octopus and has thrown out its branches in five or six different directions, over walls, fences and trees, and requires practically no looking after beyond the usual cutting out of dead twigs and giving the new growth a lead. The Rose does well also as a low fence, as might have been noticed by many in the Sunk Garden at Hampton Court. I would recommend "S. S." to try it also as a covering for a sloping bank. Robert Craig, a near relation of *Alberic Barbier*, is another splendid variety of similar habits, with perhaps not so pretty a bud, but a finer full-blown flower. "S. S." might try it as I have done, very successfully.—H. G. B., *Forest Hill*.

Calceolaria Cuttings.—Many people make the great mistake of putting in frameloads of *Calceolaria* and *Pentstemon* cuttings in early September. The result is that they strike root

and begin to make soft, sappy growth during the autumn. Then follows the cold weather and frost, which no amount of coddling can prevent, and the plants are either frost-bitten and entirely killed or damaged enough to make them useless. Here we never put in any cuttings until the end of September, and sometimes it is October. They are put firmly into sandy soil and kept close for a time, and then given air on suitable occasions. We never lose our plants by winter frosts, because they are put in so late that they can make no sappy growth. So those who would be early, let them beware, for it does not pay. Cuttings so struck will stand several degrees of frost, and mats are only put on the frames in severe weather. Coddling must be rigorously avoided if sturdy plants are required.—E. T. ELLIS, *Weetwood, Ecclesall, Sheffield*.

Antirrhinums in the Bournemouth Public Gardens.—Judging from the splendid way in which these plants have flowered in the above-named gardens during the present summer, and



A VIEW IN MRS. BLYTH'S GARDEN AT DALRY, AYRSHIRE.

also in some private gardens in the district, one should not be surprised if their cultivation is increased considerably next year. In the garden fronting the Bournemouth Municipal College the *Antirrhinums* have been beautiful indeed. Scarcely a faulty plant could be found in the long lines of them growing there. Mr. J. B. Stevenson, the able superintendent, has also made good use of them in other parts under his extensive charge. In one private garden here there are two oval-shaped beds filled with dark crimson and pure white flowered *Antirrhinums*, the crimson in the centre. The strains seem to be so fine that it would be wise on the part of the owner to propagate cuttings as well as save seeds. In the same garden there are two beds filled with *Carnation Britannia*.—G. G.

FORTHCOMING EVENT.

October 5. — Royal Horticultural Society's Exhibition of British Grown Fruit, Vincent Square, Westminster. First day, 1 to 6 p.m.; second day, 10 a.m. to 6 p.m.

ANNUAL FLOWERS FOR AUTUMN SOWING.

IN a great many gardens, particularly where the soil is of a sandy or very porous character, annual flowers from seed sown in the spring seldom give good results, owing to the fact that the soil becomes parched before they have had time to make sufficient roots to send out in search of moisture. In such gardens the sowing of seeds in autumn possesses several obvious advantages. But even where spring-sown annuals do well, there is no reason why some suitable kinds should not be sown in autumn, as they flower earlier and usually better than when sown in March and April. In those gardens where the soil is heavy clay, or usually lies very wet during the winter months, it would be folly to sow seeds of annuals at present; the plants would be practically certain to succumb to wet and cold, excessive moisture being far more

injurious than frost. It is, of course, necessary to select suitable kinds for autumn sowing. Some, such as the *Tropæolums* or so-called *Nasturtiums*, cannot withstand 2° of frost, and these must be ruled out of court. The following are all quite hardy, and under anything like favourable conditions would give good returns: *Virginian Stocks*, *Godetias*, *Candytuft*, *Sweet Peas*, *Pot Marigolds*, *Cornflowers*, *Coreopsis tinctoria*, *Alpine*, *Iceland* and *Shirley Poppies*, *Eschscholtzias*, *Limnanthes Douglasii*, *Bartonia aurea*, *Gilia tricolor*, *Nigella damascena*, *Clarkias* (the old-fashioned sorts), *Collinsia bicolor*, *Sweet Sultan*, *Silene pendula compacta*, *Saponaria calabrica*, *Nemophila insignis*, *Larkspurs*, *Sweet Alyssum* and *Collomia coccinea*. September is an excellent month in which to sow, and if the weather is very dry, artificial watering must be resorted to, as it is necessary to get well-rooted plants before winter sets in. Thin sowing and early thinning of the seedlings are other points that must be borne in mind, as a sturdy, well-hardened plant is much better able to withstand cold, wet and the



THE CULINARY APPLE BISMARCK, A LATE-KEEPING VARIETY AND AN ABUNDANT CROPPER.

ravages of slugs than a weak, attenuated one. It is, however, advisable to leave about twice as many seedlings as are likely to be subsequently required.

THE TIGER IRIS.

(TIGRIDIAS OR FERRARIAS)

THE Tigridia, or Mexican Tiger Iris, is, I fear, but little known, and less cultivated, by British horticulturists, and it is on this account that I am constrained to say a word in its favour. For beauty it takes its place in the front rank, comparing not unfavourably with many of our highly prized and highly priced Orchids.

It is not absolutely hardy, but if planted in well-drained, light soil at the foot of a wall or in front of a hothouse it will stand 12° of frost with impunity. Some authorities advocate lifting the bulbs in autumn, drying and storing them, and replanting in spring. I have never tried this plan, as with a slight covering of some dry, loose litter I find they stand our severest winters in such a position as I have indicated. The only real objection that can be raised against the Tigridia is that the individual flowers only last a brief day, but when it is remembered that a good, healthy plant will open one or more of its blooms almost daily for several weeks on end, this objection must be ruled

“vexatious.” I should explain that these remarks refer chiefly to *T. Pavonia* and its varieties or hybrids, as of some of the other species I have had no practical experience.

The following are all well worth growing: *T. Pavonia* (Peacock Tiger Iris).—None of its varieties equals this in vigour; it has a large golden orange perianth, spotted bright scarlet. *T. P. alba* (the white Tiger Iris) has a pure white perianth, spotted rich crimson. *T. P. carminea* is almost self-coloured, being a lovely carmine suffused with orange. *T. P. lutea immaculata*.—This variety, as its name suggests, is also a self, the shade being a nankeen yellow. *T. P. rosea*.—I find this variety of vigorous constitution, and a persistent bloomer. Its colours are somewhat difficult to describe, and can, perhaps, best be done in the words of a Continental grower, as follows: “Petals pure white, suffused and lined with bright rose towards the edge; centre maroon with dark spots.” *T. conchiflora*, although classed as a distinct species by some, is, I believe, a variety of *T. Pavonia*. It is familiarly known as the Shell Plant; it has a deep yellow groundwork, spotted bright red. *T. P.*

immaculata is, as its name indicates, a pure white self. I have had no success with this variety, having planted bulbs of it twice without any results. I should say that newly purchased bulbs had better not be planted out till spring. Any of the foregoing can be bought for a few pence each.

Midlothian.

CHARLES COMFORT.

APPLES FRUITING ON YOUNG TREES

CERTAIN Apples are often passed over at planting-time, as they are reputed to be very slow in coming into bearing. Instances have been cited where trees of Blenheim Orange have not borne fruit until attaining the age of twenty years. While this may be true of standard trees grown upon Crab stock, it cannot apply to bush trees grown upon Paradise stock and annually transplanted. The two accompanying illustrations are of young trees grown by Mr. J. C. Allgrove, Middle Green, Langley, Slough. These trees, lifted from the open for exhibition purposes are less than 4 feet in height, and each carried over a dozen handsome fruits, while the age of the trees is only four years! The varieties are Bismarck and Charles Ross. The former is a first-class culinary variety, keeping well until March. When worked on Paradise stock, the tree is of short, sturdy growth, and succeeds well either as a cordon, espalier, pyramid, or bush tree. It prefers a rich soil, well drained. Should the soil be of a poor nature,

trees worked on Crab stock should be planted. Worked on this stock, it will also do well in standard form. This handsome and free cropping cooking Apple came to England from New Zealand about thirty-five years ago. Apple Charles Ross is a very handsome dessert variety of large size and good flavour. It bears very freely and succeeds well in any form. Its growth is vigorous and distinct. It was raised by Mr. C. Ross, when gardener at Welford Park, by crossing Cox's Orange Pippin with Peasgood's Nonsuch. It is in season during October and November.

STORING THE APPLE CROP

Gathering Fruit : A Warning.—In Kent, as in some other counties, there is more than a passing sign of a plenitude of maggot this year, and all fruits affected will sooner or later fall to the ground. Such fruits are only of service for immediate use. It so happens, however, that the uninitiated, seeing that a few fruits are brought to earth by the wind, concludes that the time is ripe for gathering the crop, and acts without further ado. Now, there is no more fertile cause of failure than the gathering of fruit before it is fully matured.

The Test of Maturity.—“How am I to know when the fruits are ready?” asks the amateur, and the enquiry is a reasonable and natural one. The professional gardener and the expert fruit-grower know by long experience; they are also acquainted with the ripening periods of many of the fruits. Not so the amateur, who, seeing the crop falling to the ground, decides that it is time to gather. Here, however, is a simple test. Cut open a fruit and examine the pips. If these are of a white colour or just assuming a brown tone they are not ripe for gathering; but if the pips are of a dark brown colour they have arrived at the mature stage, and may be gathered at any time. Even then, however, there need be no undue haste in the matter, for the fruits will continue to swell for some time yet. Moreover, ripe fruit readily parts from the tree if raised slightly from its natural position. All fruits should be quite dry when gathered; it is essential to reject any that are in the least degree damaged. Place the fruits in shallow baskets or trays as they are gathered. If deep baskets are used, the under fruits are liable to get bruised by the weight of the fruit on the top. Late-keeping varieties of Apples, such as Bismarck and Lane's Prince Albert, should not be gathered till well into the month of October.

The Penalty of Early Gathering.—This might be summed up in a few words, viz., immature and flavourless fruits. This is, of course, but the penalty of inexperience in these matters, and those interested in them cannot do better than consult a good book, such as “The Fruit Garden,” by Messrs. Owen Thomas and George Bunyard.

Storing the Fruits.—Of an importance not surpassed by the above is the storing of the fruits when gathered. The ideal fruit-storing room is a heavily thatched building of wood and reeds, with possibly a straw or heather roof. In such a place uniformly cool and moist conditions prevail, and which are absolutely essential to success. Ventilation must be provided at several places round the lower part of the building, i.e., below the lowest shelf and also at each end near the ridge, to permit a free current of air to pass right through the building. The floor should be of natural earth, which should be sprinkled with

water occasionally. This is very important to ensure keeping late fruits in good condition and prevent them from shrivelling. The shelves should be made of battens (of white deal), the edges of which should be rounded off to prevent them from marking the base of heavy fruits. The battens should be $2\frac{1}{2}$ inches wide, and placed half an inch apart to allow a free passage of air. The shelves should not be more than $2\frac{1}{2}$ feet deep, otherwise there is a difficulty in attending to the fruit at the back of the shelf when looking it over. Windows should be provided at each end of the fruit-room to give sufficient light when looking over the fruit or doing any other work required, but shutters must be placed over them so that all light is excluded, except when work is going on. Wire gauze should also be placed over the ventilators to exclude wasps. Extremes of great dryness and changeableness of atmosphere are fatal to the successful keeping of fruits. So, too, are closeness and warmth. Fruits may be well kept in cool, moderately moist sheds or cellars where the above conditions prevail and where darkness is secured. Place the fruits singly on the shelves, keeping the early and late varieties apart, and do not fail to inspect them from time to time as required.

ROSES IN YORKSHIRE.

WHEN the tragedy of August, 1914, came upon us, there must have been many hundreds of amateurs who, like myself, had already placed orders for new and experimental varieties of Roses. I hope that most of these orders remained and were executed, both for the sake of the nurserymen and the feast of bloom that has rewarded us this season.

We hoped that the appearance of bloom would coincide with a world peace, and although that desirable consummation is still to come, we know that it will come, as surely as the choicest blooms follow the hard pruning that at the time appears to be such a ruthless operation.

Juliet as a Fan-Shaped Bush.—The outstanding feature of my own garden in June was Juliet, which I had pegged down into a fan-shaped bush. This commenced to bloom on June 8, very early for Yorkshire, and quite three weeks earlier than the same tree bloomed as a maiden in 1914; while by June 18 I had no fewer than sixty-three blooms either fully out or in the half opened bud state. It was a glorious sight, and many of my friends came into the garden to inspect it; and even now, early September, there are two or three buds that will develop. Needless to say, the bush has received generous treatment from the manure heap, but it is obvious that it rewards us on the same scale.

Ten Good Roses.—Before passing to the newer varieties that have justified their place in the garden, I should like to mention again two or three varieties which I recommended in articles under this heading last year, and which have with me so abundantly justified that opinion that they ought to be mentioned again for the benefit of amateurs in this district. If I were limited to ten varieties only, I would unhesitatingly plant quantities of Lieutenant Chauré, General Macarthur and Fisher Holmes in the reds; while Mme. Ravary, Duchess of Wellington and Betty cannot be beaten for the yellow and copper tones. From these six one

gets not only quantities of bloom, but quality also. For three representative pinks I go for Lady Ashtown, Mrs. George Shawyer and, of course, Mme. Abel Chateau; while the tenth variety, and in some respects it is the most attractive of the whole lot, is Mrs. David McKee, with huge creamy yellow blooms of perfect shape that last well on the plants.

Some Newer Varieties.—Passing direct to some of the newer and, to my experience, quite new varieties, I commence with

Chateau de Clos Vougeot, a velvety scarlet of rich colour and fine texture. It appears to me to be sunproof; its colour is retained in heat or wet, and is a good grower and abundant bloomer. It has a tendency to produce horizontal shoots that are a little awkward in a well-filled bed, but it is one of the best and darkest reds I have yet grown.

Geoffrey Henslow, another red of an orange crimson tone, is a splendid garden Rose, globular in shape, though not of uniform shape with me. Yet it must be named because of its exquisite perfume. It is one of the sweetest and most powerfully perfumed Roses I know, even for a red. We want more new varieties with this quality of scent.

Dora van Tets is a beautiful little red Rose somewhat resembling Richmond and as effective in colour, but with a most fascinating perfume and a bloom that lasts well on the plant or when cut. The flowers are produced on slender, graceful stems that are the better for some slight support. The fault of this variety is its dwarf habit of growth, which debars it from a good position in the bed.

Mrs. Edward Powell is a fine scarlet Rose that with me is an excellent grower, and is obviously of great merit as a bedder. The foliage is very attractive, a vigorous reddish tint, quite free from mildew. This variety gives promise of abundant autumn bloom.

Mrs. Arthur Coxhead is another good variety. It has large flowers of perfect form, is continually in bloom and full of scent. The colour is not a favourite shade—a pale claret red that will not accord with other reds. It demands a bed to itself, and would then be better appreciated.

H. E. Richardson, a lovely dark red, has well-formed flowers of great fragrance; it is also of value as a Rose that lasts well on the tree.

King George V., by the same raisers (Messrs. Hugh Dickson), has also done well with me. A fine dark red. It has a touch of violet now and again that does not really improve it, but the blooms are of good shape, and I consider it of value as an exhibition variety.

Laurent Carle is another Rose that I would plant more of. It is a fine garden Rose, a brilliant carmine, quite distinct, and the flowers are produced on extra long and strong stems, a great quality in bedding Roses. This variety never needs support of any kind.

Mrs. Charles E. Allen.—This is another delightful Rose that is perhaps not generally well

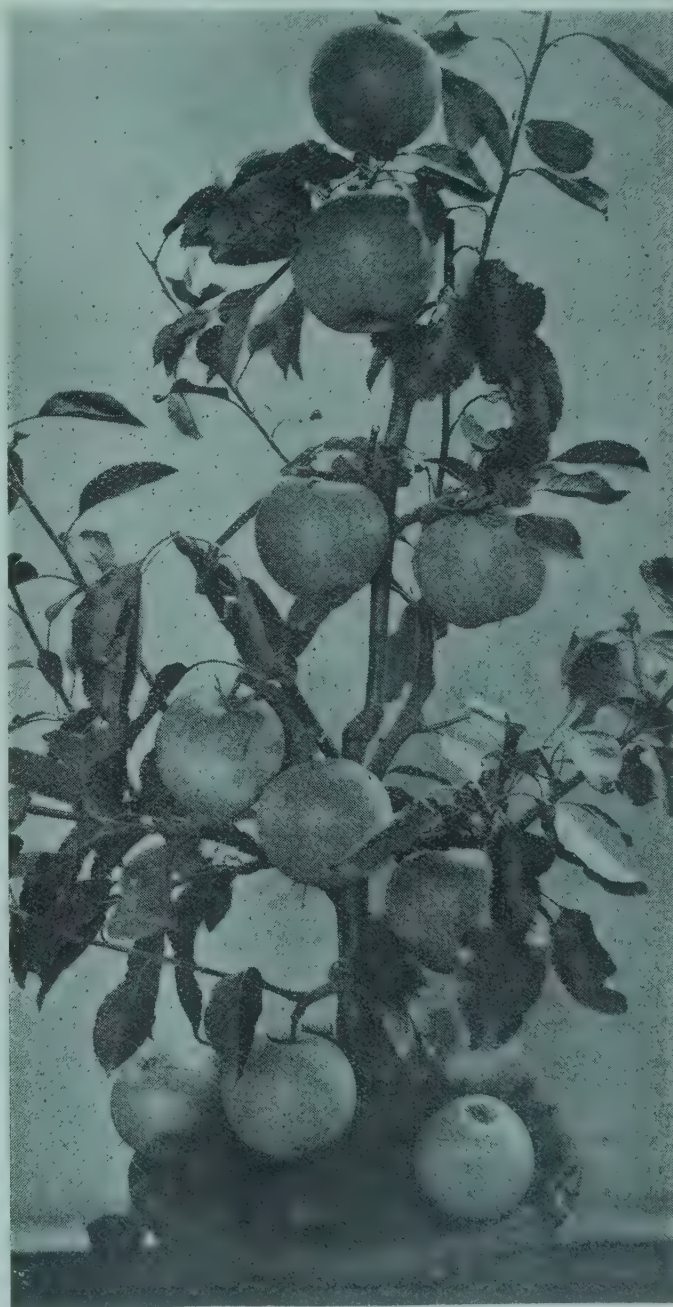
known among amateurs. Although almost a new variety (1911), it is within reach of the most modest pocket. The colour is a delicate or pale orange, changing to salmon buff. I have had some perfect blooms, both in shape and colour, which are perfumed. It is one of those varieties which we willingly increase at the expense of the many very moderate growers, because, in addition to its other virtues, it makes good, clean foliage and is with me free from mildew.

Roundhay.

E. WATERS.

CULTIVATION OF FREESIAS

THOSE who are fond of the Freesia should procure their bulbs and pot them at once, for September is the latest month to get them into their flowering quarters. August, it is true, is better still, and even July is not too early. They shrivel and deteriorate badly when left unplanted until late in the autumn, and the careful grower will take time by the forelock.



APPLE CHARLES ROSS, AN INDISPENSABLE DESSERT VARIETY.

If I am asked what to plant, I reply that if the common sorts are going to suffice the enquirer, such things as *refracta*, *refracta alba*, and *Leichtlinii* are probably essential, as they are vigorous and also cheap. But when buying *Leichtlinii*, one may get any sort of thing, and I must confess that after many years' experience I cannot recommend a reliable source from which one can get this plant true to name. I am amused, though, to notice that the everyday Press writer rarely goes further than to recommend the several varieties I have named above. He seems to have forgotten that hybridists have been at work, and of late years some very charming new varieties have appeared, resulting from their labours. Account should be taken of such sorts as *Chapmanii*, (yellow), *Excelsior* (a very large and solid cream-coloured flower), *Tubergenii*, *Tubergenii Amethyst*, *Le Phare*, and others which are now quite moderate in price, for the *Freesia*, like the rabbit, multiplies very freely under favourable conditions, and bulbs which were quoted at so much each a very few years back may now be had at the same price, or less, per dozen.

I notice that Mr. Van Tubergen in his this year's list quotes no fewer than a score of new coloured varieties of his own raising, while other breeders are at work, and among new *Freessias* exhibited at the meetings of the Royal Horticultural Society there are frequently some pretty and interesting ones on the stand of Messrs. Barr and Sons, one named *Orange Queen*, in particular, having struck the eye of the writer. This is a very fine rich deep yellow flower, with every appearance of vigour, but not in commerce yet, I think. The few essential points in connection with the successful cultivation of the *Freesia* are now fairly well known, but will bear repetition. I had to find them all out for myself, for when I began to grow *Freessias* years ago I was just content to watch my neighbours' methods, which I now know were nearly all wrong.

The main secret of successful *Freesia*-growing, then, appears to me to be the avoidance of coddling in all its shapes and forms. After potting, do not house your plants until frosts begin to threaten. When housed, give them as much air as possible and a reasonable abundance of water, varied in the later stages with plant stimulants of a reliable kind. Finally, let the staking of the plants be as unapparent as possible, the thinner the sticks the better, and let such tying as is required be done with thin green bast or Raffiatape.

A houseful of the newer *Freessias*, in their varied shades of white, mauve, yellow, crimson and rose, is one of the most charming sights imaginable, and even just a few plants, carefully grown, will give a great deal of pleasure and delight to the cultivator.

MICHAELMAS DAISIES.

AT this time of the year, when the flower-borders, if not quite done for, are at least at their last stage before final dissolution, it is a joy to come upon a well-planted border of the perennial Asters, with their clear, fresh colouring all the more accentuated by contrast with the general sombre rustiness of the greater part of the neighbouring vegetation. For the extension

by using not more than twelve to fifteen kinds in bold drifts than by having a larger number in lesser patches.

A limited number of good kinds having been secured, the whole effect of the borders will depend upon good arrangement and good staking. It is much best, as in all other flower-border work, to do it by a plan on paper. If space can be given for a border or double border for September and another for October, both should be carefully planned; then a good range of kinds, both early and late, can be used to advantage. There are

such borders in the present writer's garden. As the one for September has a greater length than the later one, some other colours and kinds of plants are introduced, though the main effects are of the early Daisies. Here are *Asters acris* and *Amellus*, with low plants of whitish or glaucous foliage, chiefly *Stachys* and white *Pink*, near the path, with a rather thick inter-planting of *Ageratum*; then the moderate-sized *vimineus*, the pretty, smallish *Collette blanche* and some seedlings of good short habit, and, further back, the taller kinds derived mostly from *Novi-Belgii* and *Novæ-Angliæ*. It may be as well to remind readers that *Novi-Belgii* accounts for the greater number of the tall and medium tall kinds with smooth stems and leaves, and that *Novæ-Angliæ* is the parent of those, also tall and of middle height, that have the stems and leaves rough and hairy and a rather strong, characteristic scent, the varieties of *Novi-Belgii* being much the more numerous.

To return to the early Daisy border, among the kinds of medium height are the splendid *N.-A. Ryecroft Purple* and another of the same family named *Mitchellii*. At the back is one of the best, the grand *puniceus*, with its large, closely clustered heads of palest grey-lilac, and a number of the tall varieties of *Novi-Belgii*, with some groups of white *Dahlias* and in front of these the newer *Aster Mrs Tynam* about 3 feet high, of pinkish mauve colouring. Throughout the borders are groups of plants with grey foliage, such as *Phlomis fruticosa*, *Lyme-grass* and *Euphorbia Characias*, pleasantly breaking the flowery masses. Some groups of flowers of pink colouring are

admitted in this double border—*Japanese Anemone*, double *Soapwort* and the large *Stonecrop Sedum speciosum*, the last always covered with bees and butterflies. Near the middle of the length of the border on both sides is a break of palest yellow. Here the flowers are *Dahlia Lady Primrose*, pale sulphur *African Marigold*, lemon white *Snapdragon* and flowering *Golden Feather Feverfew* at the foot.

By the time the September borders begin to look a little overrun, the ones for the later kinds are brilliant with their clear, fresh beauty. Here



FREESIA CHAPMANII, A BEAUTIFUL
YELLOW HYBRID.

of the time of enjoyment of hardy flowers, as well as for their own beauty, it is well worth while to have them in a separate border in some place rather away from other gardening. If a double border can be given to them alone, it is all the better, and it will add another month to the life of the hardy flower garden. In fact, it is desirable to have two separate double borders of Michaelmas Daisies in different places. There are now such large numbers of desirable kinds that the difficulty is to choose few enough, for, unless a Daisy border is of unusual size or length, a better effect is gained

there are no other coloured flowers; the Starworts are alone, with the sole inclusion of the great white Daisy *Pyrethrum uliginosum*, whose time of flowering, being intermediate, serves equally in the borders of the two seasons. Here is again *Amellus*, a rather later variety being chosen; then the low-growing pinkish *Mme. Soynuce*, a late dwarf *Novi-Belgii* seedling and a latish vimineus, again with *Ageratum* and *Stachys* next the path. Then *J. Dickson* and *Archer Hind*, both of moderate growth; *Flora*, a home-grown seedling of pale mauve-lilac; *cordifolius elegans* and its lovely variant *Diana*, raised by the late Rev. C. Wolley-Dod; the fine old *Robert Parker*, *Top Sawyer*, *Ella*, and three of the late *Novæ-Angliæ*, namely, *J. Bowman* (reddish purple), *Constance* (violet-purple) and a pale pink *Novæ-Angliæ ruber*. There are now several varieties of this in deeper pink colourings, but there is always a danger in the reddish colouring of *Michaelmas Daisies*; it is apt to come of a heavy quality, neither good in itself nor easily employable from the artist's point of view among the fresher lilacs and purples. The older pale pink *ruber* is especially beautiful with the large white Daisy *Pyrethrum uliginosum*, and is purposely trained through and among it. *Asters Thomsonii* and *Hon. Edith Gibbs* are two

beautiful kinds that should not be omitted. In addition to those, or as alternatives, some of the fine newer *Asters* should be grown; the grand *Climax*, the double *Beauty of Colwall*; the still more recent *Queen*, *Magnet H. Adams*, and the two *Novæ-Angliæ* *Lil Fardell* and *Ryecroft Pink*. Among shorter-growing new kinds there should be *Lady Lloyd*, *Esther* and *Lovely*.

In soils of a light character, and possibly in all, it is well to divide and replant the *Asters* every year, freshly preparing and manuring the ground. If they are left for two or three years they spread considerably; then the outward overgrowth, which contains the best material for replanting, is chopped off with the spade, leaving only the less profitable part of the plant.

At the same time, some of the bolder-growing kinds and any of the white *Daisies* that come rather forward can be pinched back to half their length. This keeps them shorter and causes them to branch without delaying the flowering season. Only varieties of *cordifolius* and *Novæ-Angliæ* are not pinched, because the graceful arching form of *cordifolius* would be disturbed and because *Novæ-Angliæ* is found to be shy of blooming after being cut back. Before any

shortening, the borders should be surveyed from end to end and the pinching done where the eye requires that the plant should go back. It may be done a little more boldly than the appearance of the border actually demands in June, as the flowering sprays are apt to come forwarder than one anticipates when they are loaded with bloom and sometimes burdened with rain. G. Jekyll.

ORCHID NOTES.

CYMBIDIUMS.

THESE are showy terrestrial Orchids which may be grown in the intermediate house or among the *Cattleyas*, and I have also seen some fine examples of *C. lowianum* and *C. grandiflorum* growing in the cool greenhouse. The majority are vigorous-growing subjects, and are not adapted for small houses; but they are very useful for a corridor or where there is a central stage. They are free blooming, and the graceful arching sprays remain in full beauty for some weeks, either on the plant or in a



A BORDER OF MICHAELMAS DAISIES.

cut state, providing the water is periodically changed. If given careful attention, *Cymbidiums* will soon grow into nice, compact specimens, and a plant with upwards of a dozen scapes is a grand sight. In growing *Cymbidiums* and terrestrial Orchids generally, it should be borne in mind that a substantial and generous rooting medium must be supplied, while ample root accommodation is also essential. For large and well-rooted examples, a pot of suitable dimensions must be chosen, and, as a rule, one, two or three sizes larger will be needed, while, for exceptionally big specimens, wooden tubs are employed. The compost consists of good fibrous loam, one-half; peat or *Osmunda* fibre, one fourth; and partly decayed Oak leaves, one-fourth, with a fair sprinkling of finely crushed crocks added. This must be well mixed and used in a lumpy state for the large plants; but for seedlings it ought to be cut up rather finely until they require a pot 4 inches in diameter. During the greater part of the year *Cymbidiums* enjoy a fair quantity of water at the base, and when the

which the beautiful *C. insigne* figures as one parent embrace *Alexanderi*, *Doris*, *gottianum*, *glebelandense* and *Schlegelii*. T. W. B.

THE HEATH GARDEN AT WISLEY.

PINE woods and Heather form the leading vegetation of the country surrounding the Royal Horticultural Society's Gardens at Wisley. It needs but a glance at the bright patches of Ling, or Heather, of this Surrey moorland to convince one that this is an ideal site for a Heath garden. Backed by *Rhododendrons* and over-shadowed by Oaks and coniferous trees, the Heaths never fail to give satisfaction in these congenial surroundings. At almost any season of the year a certain amount of flower may be seen, but it is doubtful if any season is brighter than the present. Several of the Heaths now flowering are seedlings, some of them of many years' standing, and their history is lost in obscurity. Numerous self-sown seedlings appear each year,

THE POMEGRANATE.

(*PUNICA GRANATUM*.)

ONE of the special attractions in the autumnal garden is the double Pomegranate, covered at this time with its waxen blossoms in the purest scarlet. This semi-tropical shrub, too rarely seen in Britain is probably far more hardy than it obtains credit for, and if planted in a sheltered position or against a south wall, it does not appear to suffer any harm from our winters. This may be accounted for from the fact that it starts into fresh growth very late in the spring, and if only its wood is thoroughly ripened during the previous summer, it is not affected by the frosts of winter.

About the end of April the first shoots appear, clothing each twig with neat, shining leaves in the red tint of port wine, which makes the foliage very distinct and handsome until it gradually develops into bright green leaves. The globular scarlet buds, produced in abundance on the terminal sprays, first appear towards the end of July, and during August and September they open into the exquisite flowers which we usually associate with Eastern climes. Fruit, however, does not ripen well without the sunshine of the Tropics. The chill of winter comes too quickly for the Pomegranate in our gardens, though it may be possible to grow this fruit in specially warm houses. However, as a fruit Pomegranates are as disappointing as their flowers are charming, and—except in the great heat of India, when the acid water the fruit contains is refreshing—they are not worth the trouble of eating. In October the latest flower, sheltered in a corner, may be found, and then the foliage turns yellow and drops before any severe frosts affect it, after which the plant rests for nearly six months before it again starts into life. No pruning is required, for its natural shape is neat and bushy, while it is fatal to the prospect of flowers to remove the tips of the branches, on which the buds should appear the following season. Even where the Pomegranate covers a wall it should not be cut back to the conventional flat surface if flowers are required, and it does

seem a pity to sacrifice such rare blossoms to the craze for absolute tidiness which arms so many gardeners with the ruthless shears.

Young plants of this beautiful shrub should not be placed in the border until they are well furnished with ripened wood, unless they can be sheltered by a frame-light (fixed in a slanting position over them in November) during their first winter in the garden. The position for this shrub should not only be sheltered from the north and east, but fully exposed to the sunshine, with a well-drained and deep soil, to which a mulch of old hot-bed material can be added each year in April. The height it has attained in the writer's garden is about seven feet, having flourished in the same position on a sheltered southern terrace for fifteen years.

I. L. RICHMOND.



A CORNER IN THE HEATH GARDEN AT WISLEY.

repotting is finished, the surface of the soil should be 2 inches below the rim. As winter approaches, less moisture in the atmosphere and at the root will be needed, but at no time must *Cymbidiums* suffer from drought to the extent of causing the pseudo-bulbs to shrivel.

A Selection of Species and Hybrids.—*Cymbidiums* have always been popular, but their popularity has considerably increased since the reintroduction of that superb species *C. insigne*, of which there are several fine varieties. Then we have among the better-known plants *C. traceyanum*, *C. lowianum*, *C. eburneum*, *C. giganteum*, *C. devonianum* and *C. tigrinum*, the last two being characterised by their pendent scapes. Of the hybrids, *C. eburneo-lowianum* and *C. winnianum* are both distinct and handsome, while those in

some of them no doubt hybrids. Of those now flowering, the varieties of *Erica vulgaris*, the Cornish Heath (*E. vagans*), *E. Tetralix* and *E. carnea* are noticeable. The Dorset Heath (*E. ciliaris*) is one of the best of the dwarf Heathers that flower at this season, while the Scotch Heather (*E. cinerea*), is a gem among hardy Heaths. But the most distinct, and perhaps the most effective, of all the Heaths in these gardens now is *St. Dabeoc's* or the Irish Heath, whose name has been changed by botanists from *Erica* to *Daboecia* and *Menziesia polifolia*. The crimson-purple blooms of the Irish Heath are freely borne in drooping racemes, while its white counterpart is equally profuse. Both forms may be seen encroaching over a narrow pathway, as much at home as they could be on the edge of an Irish moorland. H. C.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Late Grapes.—There was a considerable shortage of sunshine during July and August which somewhat retarded the development of late Grapes. It will be necessary now to give them all the assistance possible to get them perfectly finished before the dull autumn weather sets in. Ventilate the houses with care and keep a little heat in the pipes whenever the weather is cold and dull. If the inside borders need water, choose a fine dry day, when the ventilators can be opened to their full extent. In the event of very heavy rains, the outside borders should be protected, but the protecting materials must be removed when the weather is fine.

Midseason Vines.—Any Vines which have been cleared of their crop may now be partially pruned, thus facilitating the ripening of the wood and the plumping up of the basal buds. Healthy Vines which have carried heavy crops of fruit may be given a thorough soaking of diluted farmyard drainings. Borders which need renovating may be attended to at any time now.

Melons.—These plants will need more careful attention to cultural details than is the case earlier in the season. Plants on which the fruits are approaching the ripening stage will not need so much atmospheric moisture, or the netting on the fruits will be coarse, which renders them liable to crack. Syringing should be discontinued altogether, and a little air must be admitted to the house at all times. A minimum temperature of 70° should be maintained till the fruits commence to ripen.

Plants Under Glass.

Schizanthus.—Another batch of this useful plant may now be raised. Seeds may be sown in small pots or pans and placed in a cool house till they have germinated, after which they may be grown in a cold frame till there is danger of frost.

Clarkias.—These may also be sown and given similar treatment to the above. Clarkias make splendid plants for the conservatory when given liberal treatment. Specimens 5 feet and 6 feet high may easily be grown if required. They must be grown under very cool conditions all through the winter months.

Mignonette.—Another sowing of Mignonette may also be made in small pots. If sown in 3-inch pots they may be potted into those in which they are to flower when ready. The plants will flower in 5-inch or 6-inch pots. They require the same cool conditions as advised above.

Bouvardias which are planted in a border outdoors must now be potted up and placed under glass. Take them up with a good ball of roots and pot them into 6-inch or 7-inch pots. Keep them close and shaded till they have recovered from the check, and syringe them two or three times a day.

Coleus thyrsoides.—Plants should now be well rooted in their flowering pots, and must be given some form of stimulant, increasing this in strength as growth develops. Admit plenty of air during congenial weather, leaving the ventilators open a little on the top of the house all through the night. A minimum temperature of 55° or 60° will suit them till they are in flower.

The Flower Garden.

Planting Bulbs.—The planting of many kinds of bulbs in grass is annually becoming more popular, and rightly so, for many species of bulbous plants look more at home when grown in this manner. No time should be lost in planting the bulbs when they are to hand. A quantity of Tulips and Narcissi should be grown in the reserve garden for cutting.

Climbing Roses.—The young growths must be given every chance to get well matured before the winter. Cut away all useless growth, so that light and air can penetrate right through the plants. Give them plenty of water when necessary, for growth is still active. If mildew is present, syringe with a specific.

The Hardy Fruit Garden.

Late Plums.—Wasps are unusually numerous this season, and unless late-keeping Plums are protected from these pests, very few fruits will be left to ripen. Jars of sweetened beer hung about the trees will trap many of the insects, but the most effective method of dealing with young trees is to tie sheets of tiffany over them. See that the trees on walls are well supplied with water at the roots.

Strawberries.—Plants which have fruited this season and which are to fruit next year should be mulched with farmyard manure. This will strengthen the crowns for another season. Dustings of well-seasoned soot will also be beneficial in this direction, as well as destroying slugs and snails. Runners must be kept removed as they appear. During dry weather, plants which have been put out this season must not be neglected in the matter of watering.

The Kitchen Garden.

Globe Artichokes.—Fresh plantations of these useful vegetables must be made every two or three years. The potting of suckers in the autumn forms the best method of propagation. Carefully remove the young growths from the old plants, pot them into 6-inch or 7-inch pots, and plunge them in ashes in a cold frame. They will make excellent plants for putting out in the spring.

Turnips.—Thin out the young plants as soon as they can be handled and run the hoe between the rows. Light dustings of soot or wood-ash will keep the Turnip fly in check and act as a stimulant to the plants, especially in showery weather. If necessary, another sowing might still be made on a warm border.

Cauliflowers.—A sowing may now be made in cold frames for spring supplies. Sow the seed thinly in poor soil and prick out the young plants as soon as they are large enough. To encourage a sturdy growth, admit plenty of air at all times, removing the lights altogether when the weather is favourable.

Mushrooms.—If a suitable house is available, beds should be made up every two or three weeks. The materials must be collected in a dry shed and turned every two or three days to get them into condition. When the manure is ready, make the bed by ramming the materials firmly together. Do not spawn the bed till the temperature has declined below 80°. After putting in the spawn, cover the bed with an inch or 2 inches of soil.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

Plants Under Glass.

Chrysanthemums.—As most of the plants will be housed within the next fortnight, it will become necessary to protect the late-flowering varieties, which should, if possible, be allowed to remain outside until they have set their buds. Where they can be protected by erecting spars to hold up the covering material clear of the plants, fewer weak and drawn up flowering stems are the result. If possible, avoid overcrowding the plants, both outdoors and under glass.

Primulas and Cinerarias.—The later plants should be put into their flowering pots before becoming starved for want of pot room. Do not overpot. Any fly or other insect pests can be got rid of by fumigation, which should not be given very strong in the case of these plants or when the foliage is damp.

Begonia Gloire de Lorraine.—Where plants are required to be early in flower, the picking of flower-buds must cease. Tying requires to be done every two or three weeks. With less evaporation taking place, less water must be used in damping the floors of the houses, and syringing of the plants must be discontinued after this date. Avoid a close atmosphere and continue to use the blinds during bright weather.

Malmaison Carnations.—Layers which were potted in August—in fact, all Malmaisons—should

now be removed from the cold frames to the Carnation-houses where there is pipe heat to dispel any over-abundance of moisture. Plants left outside after this period are almost certain to fall victims to the dreaded Carnation rust.

The Kitchen Garden.

Potatoes.—Any tubers which may still be left in the ground should be lifted without further delay, as there is nothing to be gained by leaving them longer. They may be stored either in a cool shed or pit, but where rats are troublesome it will be necessary to make them secure against attacks.

Cucumbers.—Another sowing may be made to raise plants which will fruit in late winter, remembering to grow them in a much lighter compost than that used for the summer crop.

Spinach.—Later-sown crops should be thinned as they become large enough, and if the soil is not very rich, some artificial manure can be hoed in to encourage a free growth.

Celery.—The earlier crops are ready for another earthing up, which should not be delayed if good heads are required for next month.

Beetroot.—If there is any danger of this crop growing too large, the roots should be pulled up without further delay and stored. Every care must be exercised in handling the roots, otherwise, if at all bruised, they are ruined for kitchen use.

The Flower Garden.

Calceolarias.—The different varieties of Calceolaria ought now to be propagated in cold frames. If the cuttings are put in fairly thick, they take up less frame space, and consequently need less covering material during severe weather. Then it is easy to replant early in spring, when, by giving them more room, they develop into large plants.

Tender Plants which have been used outdoors for subtropical bedding must be placed indoors when there is any danger of frost. The plants which have been plunged should be closely examined to see that the drainage is in perfect order before removing them to their winter quarters.

The Grass under and around trees, which cannot be mown with machines, should be cut over before the leaves fall in any quantity. If left any later, the work is more difficult and cannot be done so well.

Fruit Under Glass.

Late Vineries.—The conditions prevailing when ripe fruit is hanging must be much drier than has been the rule up to this stage. Air should be admitted freely on all favourable occasions, although a low temperature must be avoided by keeping a circulation of heat in the pipes, regulating this in accordance with outdoor conditions. During wet weather much more pipe heat should be used. The borders when requiring water should be dealt with early on a sunny day, so that most of the surface moisture may escape through the ventilators before night.

Fruit Houses at Rest, such as early vineries and Peach-houses, should be kept clear of other occupants as far as possible. This is not practicable in many establishments, owing to the demand on space under glass. Where Chrysanthemums and other plants have to be admitted, they should be placed as thinly as possible and clear of the trees. Another objection against the practice of housing plants in fruit houses is that vermin is in many cases introduced with them, which is a permanent source of trouble to the grower.

The Hardy Fruit Garden.

Autumn-Fruiting Raspberries.—When there is danger of frost injuring the blossom, it will be necessary to protect the plants with some light covering material. As the fruit ripens, it is even more liable to be devoured by birds than the summer fruit, and should therefore be well protected with nets.

Loganberries and similar fruits should have all the old canes removed as soon as the crop is over, and the young growths may then be secured in their permanent positions. The plants then need no further attention except the application of manure during winter.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

WANTED: GOOD HOMES.

BY THE REV. JOSEPH JACOB.

I HAVE a great many old and more newly acquired friends for which I would like to find good homes. At present they are in their boxes or bags wondering what is going to happen to them. Jenny is one, and Jenny is lucky, for when such a powerful patron as the great firm of J. R. Pearson and Sons of Lowdham backs me up, and, as it were, vouches for anyone's proper behaviour, that friend's future is well provided for. Who is Jenny? What is she? The sweetest and brightest of early Tulips, who only asks for a little pot room to be perfectly happy, but who, good little soul, is so accommodating that, although she appears to prefer pots, can make herself quite contented out of doors. That mass of lovely, lively pinky rose down the garden did come in for some nice remarks last spring and no mistake. Then there is Jenny's near relative, President Lincoln, splendidly named, the white base of the flower typifying the stainless soul of the hero, and the delicate, retiring purplish mauve of its petals his quiet strength. He asks for a home. Who will give him one? Kitchener has not had — magnificent as it is — a greater reply than President Lincoln had when he appealed to Congress. Pardon me for quoting it again, but it is wartime, and I love to think of the gardener's response.

We are coming, we are coming,
As our fathers did of yore;
We are coming, Father Abraham,
Ten hundred thousand more.

Cerise Gris-de-lin begs for a few cubic inches of earth in some kind person's greenhouse.

Somewhere in Horace, if I don't forget.

We find a wealthy man.
Whose wardrobe did five thousand suits contain;
He counted that a vast prodigious store,
But I that number have twice told and more.

The "raspberry and cream" red of Cerise Gris-de-lin's coat, with its lapels of fawn; the rich dark blood red crimson of Couleur Cardinal; the screaming, almost vulgar, red and yellow—if a flower ever can be vulgar—of Keizerskroon; the soft Tea Rose yellow of the semi-double Safrano; and the strange pink-toned claret of La Remarquable are samples quoted to prove the truth of the words Cowley put into the Tulip's mouth. Personally, I like them all but Keizerskroon. It is so aggressive and, figuratively, uses such bad language when anyone tries to be neighbourly that I would ask for a place in my readers' glass-houses for Hector instead. Keizerskroon and Hector might be labelled "vulgarity and refinement."

The claims of Cottage and Darwin Tulips may be reserved for a later date. I am more anxious about some of my other friends now—the jolly little species Crocus, which are just longing for

a nice "pocket" on some well-cared-for rockery. Will not someone have pity on them? They are such good little people—very many of them—and so little trouble. Sieberi, susianus, biflorus, tomasinianus and Imperati are real beauties, and yet most of the big firms of the British Isles treat them as if they were poor plain Wallflowers and leave them severely alone. Go where they are to be found—to Barrs, for example—and offer them a home; their smiles soon after Snowdrop-time will amply repay you. All they ask for is a quiet, sheltered nook. I wonder if Mr. "Bard" or Mr. "Ireland" would help the little people with a grand display next spring! "Please, sirs, do, do."



ORNITHOGALUM ARABICUM. A USEFUL SUBJECT FOR CUTTING.
THE FLOWERS IN THIS VASE LASTED FOUR WEEKS.

My good old friend Mr. Mallender tells me you can have too much of a good thing. When he was head-gardener at Hodsock Priory, Miss Mellish got him to plant Ornithogalum nutans in the garden, and he tells me they have been trying to get rid of it ever since. Forewarned is forearmed. A home is being found for a hundred at Whitewell Rectory this autumn. The vases of it in Bath's group at the last Chelsea Exhibition were among the belles of the show. It may have been the proximity to the gay colours of the Tulips that brought their delightful shiny, silvery green and white flower-spikes into such prominence; but, however it was, the fact remains that the suggestion a titled lady who frequently visits the Wisbech nurseries made to Mr. Leak bore good fruit, and

many are the gardens which are waiting to give it a welcome this autumn.

Ornithogalum arabicum, first cousin to the foregoing, is of an entirely different disposition. It is a somewhat shy customer and needs the warmth of a Guernsey or a Southern sun to prepare it for a display, but as the transfer from a dealer's storeroom to a reader's glass house can be effected by a very small expenditure of silver shillings, it is well worth the offer of a home. The blooms are like exquisite large, pure white Buttercups, with a shining black pearl in the centre of each. They are arranged on the stems in a sort of umbel, and to add to their other charms they have a sweet Hawthorn scent which is just strong enough to

be pleasant. Like the flowers of a Gladiolus or a Lavatera, they all open in water in orderly sequence, without any hustling one another out of the way before it has had a real good "blow" The ancients, according to Parkinson, must have been too much taken up in settling whether it was a Lily, a Hyacinth, or a Star-flower, that they neglected the chance of giving it one of those grand, long, many-worded names which its many excellences might well have suggested. Perhaps, after all, they did well to concentrate on arabicum, for, alas! it is "very impatient of our cold winters, so that it seldom prospereth or abideth with us."

Tritonia Prince of Orange is a Guernsey-born bulb that is anxious to seek its fortune abroad. Crocata, its brother, has already made the attempt, but owing to a provoking habit which it has of consistently refusing to do itself full justice except in sunshine, it has not been so widely welcomed as otherwise it might have been. Prince of Orange is a much more taking person. Sun or no sun, its bright scarlet orange blooms remain expanded and brighten its adopted homes. It asks for pot room in a cool greenhouse, as it is a very chilly subject and cannot stand cold.

The last plant on whose behalf I am going to plead for a good home is that fine old border

gentleman, Thunderbolt, the best still of all the Xiphium Irises. I have seen the beautiful creations of Van Tubergen of Haarlem and of Chapman of Rye, but none of their children surpasses this old favourite in quiet elegance. It is the Louis XIV. of the Spanish and Dutch Iris tribe, inasmuch as the rich combination of deep purple and bronze that is found in that Tulip is reproduced in the Iris. By the way, I like its name; it seems singularly appropriate for some reason that is not quite clear. Perhaps it is due to its peculiar colour, deep purple and bronze, weird and yet how beautiful! Who will provide the warm, light, rich soil that it delights in? With such accommodation as this secured, it will flourish and multiply.

THE BLACK OR BERRY-BEARING ALDER FOR GUNPOWDER.

THE following article, by Mr. W. Dallimore, which appears in the *Kew Bulletin*, No. 6, will, we think, be of special interest now that explosives are so much in demand:

"A good many complaints have been made during recent years regarding the poor prices obtained for coppice wood and the difficulty experienced in finding a market for some kinds, yet there are certain coppice woods that are not produced in sufficient quantity to supply the demand, and adequate steps do not appear to have been taken to replace plantations of unremunerative trees by more promising species.

Rhamnus Frangula is a case in point, for, although wild in the southern parts of the British Isles and at one time cultivated to some extent, it has been impossible for many years to secure the required quantity of wood in this country, and importations have been made from Belgium and Germany. The value of the wood at the present time will be appreciated from the fact that when carbonised, the charcoal is recognised as one of the most important of all charcoals used in the manufacture of explosives, its inflammable character making it peculiarly useful as an ingredient for smokeless powder.

Even before the commencement of the present war, manufacturers experienced a difficulty in securing the necessary amount of wood; therefore there appears to be good reason for landowners in this country, and particularly in the Home Counties, laying down plantations to replace coppice, which at present hardly pays working expenses.

Under normal conditions *R. Frangula* is found as a bush 6 feet to 15 feet high, with upright branches, or sometimes as a small tree 20 feet high, with a trunk 6 inches to 9 inches in diameter. The leaves are deciduous, bright green, oval, and 2 inches to 3 inches long by 1 inch to 1½ inches wide. The flowers are greenish yellow and borne in May, and they are followed by small, round fruits, which are alternately red and black when ripening.

Tall, straight shoots with few side branches are most approved for charcoal, and such shoots may be from half an inch to 2 inches in diameter; larger wood can be used, but it is usually passed over in favour of the smaller sizes. The wood is either cut in spring when the sap is flowing freely, or in winter when at rest. In the former case the bark is peeled off at once, as is done with spring-cut Willows; but in the other instance the wood is boiled or steamed before peeling. Great care is taken to keep the newly peeled wood free from dirt, and provision is made so that it does not come in contact with the ground, for any foreign matter has to be thoroughly cleaned away before the wood can be used. The wood is usually sold to the powder factories as soon as it is peeled, and in normal times the purchasers keep it for a period varying from one to three years before turning it into charcoal. To keep it clean during the process of seasoning, it is often stacked and thatched, in the same way as hay or corn, as soon as it arrives at the factories. The exclusion of particles of sand and grit from the charcoal is of vital importance; therefore,

after being thoroughly cleaned, the wood is placed in a closed cylinder for carbonisation, heat being applied from outside. It is difficult to say what the wood is worth at the present moment, but a few years ago it was quoted at from £10 to £14 a ton.

The most suitable soil for *R. Frangula* is a moderately good loam, but as a rule it may be expected to thrive where the Hazel grows well. Propagation should be conducted by means of seeds sown in boxes in a cold frame, or in beds of well-drained soil out of doors. The young plants should be placed 6 inches apart in nursery rows a foot apart, and, when about nine inches high, they should be cut back to induce several branches to appear from near the ground line. When the young plants are from 12 inches to 18 inches high, place them in permanent positions at intervals of from 4 feet to 5 feet, on ground that has been well broken up. From six to eight years' rotation will probably be found most suitable for the crop, though position and soil may make a year or two difference either way. An open position exposed to south or west is considered to be most favourable. When cutting a plantation over, care should be taken to cut the branches as close as possible to the rootstock; otherwise long, objectionable spurs will be formed. In the event of a large number of shoots being produced from cut-over plants, it is wise to remove all unnecessary ones during the first year. Growth is facilitated by keeping the ground free from coarse weeds, and by working between the plants occasionally with a cultivator while they are small. Should signs of deterioration appear in the vigour of the branches, a dressing of bone or some other manure may be applied to the land, for a little money spent in this way will be amply repaid by increased yield.

It is doubtful whether a large stock of plants could be procured in the British Isles at the present time, and the catalogue price for single plants places the few which are available outside the bounds of practical forestry. It would therefore appear likely that anyone wishing to undertake the cultivation of this plant would need to commence by sowing seeds. The fruits may be collected during August or September and placed in sand to separate the seeds from the flesh, sowing the seeds and sand together during the early spring. People who already possess large or small plantations might find the present time an excellent one for marketing the produce.

In some parts of the country *R. Frangula* is known as Dogwood, but it is quite distinct from the true Dogwood (*Cornus*), which makes an inferior charcoal, and the two plants must not be confused."

A NEW CLASSIFICATION OF ROSES.

THERE has been some talk about a new classification of Roses. The promoters of the scheme are of opinion that the barriers which at one time separated the Hybrid Perpetuals from the Hybrid Teas, and the Hybrid Teas from the Teas, have long been broken down, and that it is next to impossible to assign new Roses to their rightful groups. It is also claimed that the Hybrid Tea group has become very unwieldy, and that it includes varieties of Roses which are widely diversified, so much so that there are Roses to be found among Hybrid Teas which are totally

unlike one another for practical purposes, such as association in the same bed.

It has also been pointed out that the old designations are useless to the amateur who desires to know for what purpose any particular Rose is best suited; and to meet these several disadvantages it has been suggested that Roses be divided into what we may perhaps term "economic groups." That is to say, there shall be an exhibition group, a bedding group, a general purposes group, a fragrant group, a town garden group and a buttonhole group, besides similar groups of varieties suitable for decoration, cutting, greenhouse, walls, pillars and pergolas.

Clearly this is a step in the right direction. But if it is intended to place in each group all the suitable varieties, then the names of a great many Roses must go into three or four different groups, thus causing a great deal of overlapping or cross references.

It seems to us that the National Rose Society's "Selections of Roses for Various Purposes" provide a more practical solution of the problem. Let the Hybrid Tea, Hybrid Perpetual and all the other more or less artificial divisions go, but let us keep to an alphabetical list, and place to each name a sign or letter indicating for which economic group or groups the variety is recommended.

It will not be news to many of your readers to hear that we have carried out the spirit of this idea for many years past. But two years ago we commenced to do more. We realised the desire of the amateur for some means, other than the more or less indefinite descriptions, whereby he might readily gain an idea of the character of a Rose before deciding to purchase, and the resources of colour photography and colour printing were brought into use.

The plan adopted was to take typical blooms of six, twelve or twenty-four of the varieties recommended by the National Rose Society for various purposes, set them up on the usual show boards for convenience of photographing, and thus secure natural colour records for inclusion in the catalogue. This year there are no fewer than nineteen different economic groups represented in colours as nearly natural as the highest skill of the printer can commercially produce them.

The great point, of course, is that it is the selection committee of the National Rose Society, and not ourselves, who are responsible for the composition of these economic Rose groups, which are varied from year to year within the limits prescribed in the National Rose Society's catalogue of Roses. We shall be pleased to send a copy of our Rose book to any of your readers who desire to see it.

Liverpool.

BEEES, LIMITED.

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

Offices: 20, Tavistock Street, Covent Garden, W.C.

ANSWERS TO CORRESPONDENTS.

FLOWER GARDEN.

VIOLAS ATTACKED (J. P.).—The enemy is no doubt the spotted snake mite. Trap it by placing halved Potatoes just beneath the soil, examining them and destroying the pests every day.

MONTBRETIA FAILING (H. B. Brooking).—The Montbretia sent is apparently suffering from the attack of a bacillus which destroys the foliage and sometimes the corolla of Gladioli as well as Montbretias. We think, however, the plants will grow out of it another year, though it would be wise to lift them and replant in a fresh place.

PERENNIALS FOR DRY BORDER (H. B. Brooking).—The Rose of Sharon would do quite well, but few other plants would thrive in its company. If, however, you desire a mixed arrangement of low-growing subjects, a considerable display of flower could be secured by planting several distinct Aubrietias, as Dr. Mules, Prichard's A 1, Lavender, Souv. de W. Ingram and Moerheimii, also Saxifrage such as apiculata and those of the Mossy section, e.g., Wallacei, Guildford Seedling and rubra sanguinea. By arranging these as carpeters for the front, with Campanula muralis, you might also plant Lilium candidum, Belladonna Lilies and Alstroemeria aurantiaca along the back in groups, and so secure a gay flowering at one or two periods of the year. If the position is a sunny one, the Aubrietias would be the better, particularly if you incline to one kind of plant, employing the varieties above named in groups.

ROSE GARDEN.

CRIMSON ROSE FOR BEDDING (M. M. K. C.).—Neither George Dickson, Hugh Dickson nor King George V. would make a good bed, as they are too vigorous in growth for this purpose. Should you desire a tall, vigorous grower, then of the three we should advise Hugh Dickson. You could partially bend over the shoots and thus induce a more free blossoming. We would advise as really good crimson bedders either Lieutenant Chauré, Mrs. Edward Powell, Louise Lillia or Florence Haswell Veitch. This latter is vigorous, but practically every growth will blossom.

RAMBLER ROSES ON HOUSE WALLS (Pangbourne).—We do not think the fact that the house possesses a stucco front would affect the Roses or induce mildew. It is more a question of root action and insufficient moisture at the roots. Roses on walls should be well watered twice a week from May to August, with occasional waterings of liquid manure. The soil should have been dug to a depth of 3 feet prior to planting. If you think this was not done, it would be a good plan to dig round the plants in November to the depth named. This can be done without disturbing the roots to any great extent, if care is exercised in carrying out the work. Strictly speaking, Rambler Roses should not be planted against houses. Rather would we advise the fast-growing Hybrid Teas, Teas, and Noisettes. Their foliage, being mostly of a glistening nature, enables them to withstand fungoid attacks. Of course, there are some Ramblers, such as American Pillar, Alberici Barbier, Miss Helyett, Gerbe Rose, Jessie, Tausendschön, &c., whose foliage is rarely attacked by mildew, but Dorothy Perkins and Crimson Rambler are generally failures if planted against hot walls.

MISCELLANEOUS.

NAMES OF FRUIT.—E. L. M. Johns.—Both of the Apples sent are Cox's Orange Pippin. The Tomatoes are attacked by Phytophthora infestans, a fungoid disease that attacks Potatoes and which is very prevalent this year.—C. W. Taylor.—1, Jolly Beggar; 2 and 7, Worcester Pearmain; 3, Wellington; 4, too poor to recognise; 5, Duchess of Oldenburg; 6, Duchess of Gloucester; 8, Gloria Mundi; 9, Beirré Chirgeau; 10, Princess; 11 and 12, Louise Bonne of Jersey.—Wm. J. Tull.—1, The Queen; 2, 8 and 9, Cox's Orange Pippin; 3 and 14, Golden Noble; 4, Braddick's Nonpareil; 5, Stirling Castle; 6, Mank's Collin; 7, Collini; 10, Lane's Prince Albert; 11, Round Winter Nonsuch; 12, Winter Quarrenden; 13, Barnack Beauty; 15, Wellington; 16 and 21, Bramley's Seedling; 17, Potts' Seedling; 18, Cox's Pomona; 19, Belle Dubois; 20, Lady Henniker; 23, Beauty of Kent; 22, Pear Louise Bonne of Jersey.—E. L.—Peach Noblesse and Brandy Apple.—J. V. Young.—Both Grapes are Black Hamburg. There are several forms of Black Hamburg. No. 2 is the form known as Frankenthal; the other is Dutch Hamburg.

NAMES OF PLANTS.—Lady Muriel Close.—Cratogeomys grandiflora.—Mrs. Lane.—Rhus typhina.—L. A. Riley.—Escallonia floribunda (E. montevidensis).—Boris.—Meliolus indica.—Robins.—Physostegia virginiana; it is quite hardy and will grow in any border.—A Subscriber.—1, Veronica Andersonii variegata; 2, flowers sometimes in late summer.—X. Y. Z.—1, Hypolepis millefolia; 2, Helichrysum arenarium; 3, Eriogonum biennis.—J. W. Young.—3, Pelargonium Emile Lemoine; 4, Lilium speciosum (L. lancifolium); 5, Begonia, cannot identify from flowers alone; 6, Begonia fuchsoides.—Boris.—The name of the Carnation is Pasquin.—Yin.—1, Acer platanoides; 2, Populus alba; 3, Platanus orientalis.—H. N.—A, Pyrus salicifolia; B, Hypericum calycinum.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

The usual fortnightly meeting held on September 14 teemed with beauty and interest. The Dahlia was in high festival, the Dahlia show being held in conjunction with the ordinary meeting. In other directions fruit trees in pots from Langley, rich in variety and of high excellence, demonstrated the possibilities of this branch of horticulture, and in justice it may be said that no finer similar exhibit has ever been staged. Sweet Peas from Edinburgh were very fine, while Perpetual-flowering Carnations, herbaceous plants and Roses—the latter very good from Waltham Cross—added not a little to the variety, beauty and interest of the meeting.

FRUIT AND VEGETABLE COMMITTEE.

Present: J. Cheal, Esq. (chairman), and Messrs. W. J. Jeffries, J. Willard, A. R. Allan, H. J. Wright, A. Bullock, J. Udale, J. Jacques, A. E. Bunyard, P. C. M. Veitch, W. Poupert, Owen Thomas, John Harrison, G. Kelf, James Vert, F. G. Treseder and James Gibson.

The superb fruit tree exhibit in pots from Mr. J. C. Allgrove, Middle Green, Langley, Slough, was the outstanding feature of the meeting, a replica, as it were, of the best of the Veitchian exhibits of these things, which in fullest measure it perpetuates in more than one sense. Arranged immediately at the right on entering, the group attracted by reason of the variety and the excellence of the display. Fruit trees in pots and gathered fruit have rarely been finer, to say which is a considerable tribute to British horticulture. Of a comprehensive character the group comprised Apples, Pears, Plums, Crabs of high ornament, Bullaces and other fruits sufficient, indeed, for all to admire and to spur to emulation. Of the Apples we were greatly struck by the splendid examples of Rev. W. Wilks, of which maiden trees of last year carried several handsome fruits. Others a year older were very fine. For culinary purposes this is calculated to prove a standard kind: it is also a good and reliable cropper. Peasgood's Nonsuch, Newton Wonder, Lane's Prince Albert, Blenheim Orange, Bramley's Seedling, Wealthy (a good sort, of rich colouring), Cox's Orange Pippin, James Grieve (a yellow skinned variety), Warner's King and Stirling Castle were all seen in notable examples. Of Pears, Souvenir du Congrès, Marguerite Marillat, Clapp's Favourite, Williams' Bon Chrétien and Triomphe de Vienne were very fine. Of Plums, many heavily cropped trees of the Langley Bullace (a cross from the Farleigh Damson and Black Orleans Plum) were loaded with fine fruits. It is a valuable addition to the hardy fruit garden. Kirke's, Grand Duke, Jefferson, Monarch, Pond's Seedling, President and Early Transparent were also excellent. Dessert Apple St. Everard and the late-keeping Pear Mrs. Seden were also noteworthy. Crab Apples Veitch's Scarlet, Montreal Beauty (yellow fruited) and John Downie were of high ornament and beauty. The baskets of gathered fruits were superb. A great attraction to an excellent exhibit.

The Marquis of Ripon, Coombe Court, Kingston Hill (gardener, Mr. T. Smith), contributed a table of gathered fruits in dishes, including Apples Emperor Alexander, Stirling Castle, Cellini, The Queen, Newton Wonder, New Hawthornden, Dutch Codlin and others. Pears were represented by Burrell Hardy, Williams' Bon Chrétien, Doyenné du Comice, Souvenir du Congrès and Marguerite Marillat, all of which were very fine.

Messrs. Bunyard and Co., Maidstone, contributed dishes of Damsons and Filberts, the former comprising such as Damson Prune, Merryweather, Langley Black Frogmore Prolific, Bradley's King and Damascene of Worcester. The Filberts included Purple Nut, Garibaldi, Bergeri (very large), and Kent Cob (of the largest size), these being some of the best.

Messrs. Whitelegg and Page, Chislehurst, Kent, showed the Merryweather Damson in capital form.

Mr. Charles Turner, Slough, exhibited dishes and fruiting sprays of Crab Apples in variety, Yellow Siberian, Dartmouth, John Downie, Transcendent, Montreal Beauty, Red Siberian, niedwetzkianna and Hyslop being noted in a rather good lot.

Messrs. Laxton Brothers, Bedford, showed Plums Bedford Prolific, Superb Gage, Bullace Gage, Delight and Bramley's King Damson. A variety of new seedling Pears were also shown.

FLORAL COMMITTEE.

Present: H. B. May, Esq. (chairman), and Messrs. C. T. Drury, Charles E. Shea, C. E. Pearson, G. Paul, G. Reuthe, C. R. Fielder, J. F. McLeod, W. Howe, J. W. Moorman, H. J. Jones, W. Bain, C. Dixon, J. Dickson, A. Turner, W. Cuthbertson, J. T. Bennett-Poë, W. G. R. W. Wallace and E. H. Jenkins.

Messrs. H. B. May and Sons, Edmonton, contributed a table of greenhouse Ferns and Bouvardias, the latter comprising such good sorts as President Cleveland, Elegans, of Scarlets, Vreelandii (white), and Mrs. Robert Green (pink). The Ferns were also very good.

Messrs. Allwood Brothers, Hayward's Heath, showed Carnations very finely. Brilliant (white ground) and quite new in this type of the flower. Fairmount, Gorgeous, Bishton Wonder, Triumph, Mikado and Salmon Enchantress were others of note in an important lot.

Messrs. William Paul and Son, Waltham Cross, staged an admirable lot of Roses, baskets of each variety being shown in excellent condition. Among the best were Queen of Fragrance, Mme. Segond Weber, Arthur R. Goodwin (fine yellow), Imogen (cream and yellow), Sunburst (yellow), Rayon d'Or (golden), Ophelia (flesh

and pink, a glorious Rose for this season), Lady Pirrie, Duchess of Wellington (rich in colour), Mme. Edouard Herriot, Titania and Lyon. Marcella (cream) and Waltham Scarlet were especially meritorious.

Messrs. Dobbie and Co., Edinburgh, staged a remarkable exhibit of Sweet Peas, remarkable in the sense that the flowers would have done credit to an exhibitor at any season. They were also in great variety as well as excellence. King White, Seedling Pink, Elsie Herbert, Margaret Atlee, Jean Ireland, Orchid (mauve), Lavender George Herbert, Dobbie's Cream (very rich in colour), Dobbie's Orange (a grand colour now), Alfred Watkins (mauve to blue) and Princess Victoria were all very fine. In addition Gladioli were very finely shown, a strain labelled as Mair's Pedigree Seedling Gladioli at once remarkable for variety, handsome spikes and fine flowers. In not a few instances a dozen or fourteen flowers were expanded on a single spike.

Mr. G. Reuthe, Keston, Kent, contributed hardy flowers in variety, of which Colchicums, Lapageria rosea, Liatris, Erica pilosa in variety, Berberidopsis corallina, Stobaea purpurea and others were freely shown.

Messrs. Dobbie, Edinburgh, staged a wondrous variety of Dahlias, largely of the Collarette class. Incheape (maroon and white), Doon (gold and vermillion), Cloch (mauve and white), Scarlet Queen, Thames (maroon and yellow), and Carron (scarlet and gold), were very distinct.

Mr. L. R. Russell, Richmond, showed cut shrubs in variety, examples of Oak, Betula, Quercus, Hippophaë, Crataegus, Salix rosmarinifolia, Symphoricarpos, Olearia, Pittosporum and Liriodendron being noted in a capital lot.

Messrs. Stuart Low and Co., Bush Hill Park, Enfield, had a nice lot of Statice profusa with Cannas, Hæmantis coccineus and other plants.

Mr. J. B. Riding, Chingford, showed Dahlias in variety, the Parisian singles, decorative, Collarette, Peony-flowered and Pompon sorts being shown in quantity.

From Messrs. Carter Page and Co., London Wall, came a fine lot of Collarette Dahlias in many diverse colours; also Pompon and Cactus sorts in variety, with the very showy Peony-flowered sorts, which appear annually to grow in favour.

Messrs. J. Cheal and Son, Crawley, showed Transcendent Crabs, Pyrus prunifolia coccinea, hardy Heaths, Tamarisk, Veronica and other interesting things.

Mr. W. Wells, jun., Merstham, staged an excellent lot of Delphiniums, the mass of rich blue spikes being extraordinarily fine. Lizzie, King of Delphiniums, Mrs. Creighton, Capri and Rev. E. Lascelles being notable among many.

Messrs. H. J. Jones, Limited, Lewisham, filled a table with Michaelmas Daisies and Phloxes, both in considerable variety, though the Asters we shall see again, we hope, in still better form.

The Misses Hopkins, Shepperton-on-Thames, had an exhibit of seasonable hardy flowers, Gaillardias, Italian Starworts, Colchicums and other hardy flowers in variety.

Messrs. William Cutbush and Sons, Highgate, N., arranged a showy group of herbaceous plants on the floor. Lilies, Pentstemons, Michaelmas Daisies and the like being in abundance.

ORCHID COMMITTEE.

Present: J. G. Fowler, Esq. (chairman), Sir Harry J. Veitch and Messrs. J. O'Brien, W. Bolton, Gurney Wilson, J. Wilson Potter, Stuart Low, F. Sander, F. J. Hanbury, T. Armstrong, W. Cobb, J. Charlesworth, W. H. Hatcher, W. A. Bound, Arthur Dye, W. H. White, S. W. Flory and R. A. Rolfe.

Messrs. Sander and Sons, St. Albans, showed Rhynchostylis retusa, Cattleya dowiana aurea, Brasso-Cattleya Marguerite Fournie, with Cypripediums and Odontiodas.

Messrs. Stuart Low and Co., Enfield, had good plants of Cattleya gaskelliana Blue Lip, C. g. alba, Vanda caerulea and others.

Messrs. Charlesworth and Co., Hayward's Heath, contributed Cattleya Fauna, C. Adula, C. Venus var. Princess Mary and Sophro-Lælia heatonsensis, among others.

Messrs. J. and A. MacBean, Cooksbridge, showed many beautiful Orchids, Cattleyas, Oncidium and Odontiodas being freely interspersed among the whole.

DAHLIAS—COMPETITIVE.

NURSERYMEN ONLY.

Show and fancy Dahlias are not shown so freely nowadays as formerly.

Class 1, for twenty-four blooms, distinct, show Dahlias only, was represented by one exhibit only. This came from Messrs. W. Treseder, Limited, The Nurseries, Cardiff, and they were a very good lot. Purple Prince, Chieftain, Mr. Chamberlain, Warrior, David Johnston, Charles Wood, Miss Ormerod, A. Rawlings, George Rawlings and Willie Garratt were some of the best blooms.

Class 2, for twelve blooms, distinct, fancy Dahlias only, like the preceding class, found again only one exhibit, Messrs. W. Treseder, Limited, again being awarded first prize for a fair lot of flowers. Mrs. Saunders, Frank Pearce, Rev. J. B. M. Camm and Nansen were the more noteworthy sorts.

Cactus Dahlias, as usual, were splendidly shown. The leading class for eighteen varieties, distinct, six blooms of each, in bunches, was a battle of the giants. A glorious display secured premier honours for Messrs. James Stredwick and Son, St. Leonard's-on-Sea. Washington, Perseus, Searchlight, Gigantic, Fearless, A. R. Perry, Miss Stredwick, F. W. Fellowes, Dorothy Hawes, Pierrot, Miss Judd, Phenomenal, Invincible, Gossamer and Adventure were especially good and noteworthy. Messrs. J. Burrell and Co., Cambridge, were second with a quite interesting series of bunches, John Riding, Constance, Esmée, Cygnet, George Schofield and Golden Crown being the better sorts.

THE GARDEN.

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SEPTEMBER 25, 1915.

NOTES OF THE WEEK.

A Letter from the Front.—We have received the following letter of appreciation from Private H. W. Bennett, 2369 A Company, 6th Sherwood Foresters, British Expeditionary Force: "Thank you so much for copies of THE GARDEN, which were very much appreciated by myself and friends. I should also like to thank, through the columns of your paper, the many kind people who have sent me copies of THE GARDEN for distribution, as well as very acceptable gifts of cigarettes, &c., for my gardening friends, with whom I am fighting side by side."

Crocus speciosus in the Grass.

We have a small group of plants flowering just now, and extremely pretty they are among the green carpet of grass. Apart from the general effect in the grass, the individual flowers are very telling when viewed separately. Perhaps the flowers may be described as bluish mauve, suffused with purplish veins, in the centre of which stands a much-divided stigma of a rich deep orange shade, the two colours forming a really beautiful contrast.—C. T., *Highgate*.

Wichuraiana Rose The Farquhar.—At Rouken Glen Park, Glasgow, the Wichuraiana Rose The Farquhar, sent out by Messrs. Farquhar and Co. in 1903, is one of the best of the pink-coloured Roses in the old walled garden, which is so attractive now that it has been devoted to flowers and opened to the public. The Farquhar Rose is one of the finest there, with its numerous clusters of pink flowers, which pass off almost white.—S. A.

Potato Disease.—Favoured by moist weather in August, Potato disease (*Phytophthora infestans*) has destroyed the haulm of Potato crops in many parts of the country. The dead haulm, if allowed to lie on the soil, may infect the tubers. In view, however, of the drier weather of the past few weeks, it is probable that as yet relatively few tubers have been attacked, and, consequently, that the immediate removal of diseased haulm would minimise risk of infection. As a further precaution, however, all crops should be lifted as soon as possible and carefully stored. Further particulars of this disease, with suggestions as to the storage of the crop, will be found in Special Leaflet No. 39 (Potato Disease), to be had, gratis and post free, on application to the Secretary, Board of Agriculture and Fisheries, Whitehall Place, S.W.

Use of Bracken as Litter.—In certain districts where straw is scarce or where it may be

profitably fed to stock, farmers and stock-owners should consider the possibility of using Bracken for litter. A special leaflet giving a short account of the use of Bracken has just been issued by the Board of Agriculture and Fisheries, who will send a copy to any applicant on receipt of an unstamped post-card addressed to them at Whitehall Place, London, S.W.

Storing Late Apples.—Constant attention must be given to the gathering of Apples. Varieties which are known to hang longest must, of course,

Stachys corsica and Asperula suberosa.

No rock garden or alpine lover should be without these two charming plants. The low-growing habit of *Stachys corsica*, with its long season of flowering, makes it indispensable. Especially will it appeal to the plant lover with a small moraine or rock garden; its habit is no neat and with us it has flowered continuously since June. *Asperula suberosa* is another charming plant this season. It is still in flower here, and it first opened in June. Its lovely grey foliage, soft pink flowers and tidy habit make this one of the gems of the rock garden. It should be planted on a slope where it gets ample drainage.—G. G. W., *Chislehurst*.

The Old Quarry at Springburn Park, Glasgow.

—One of the brightest of the Glasgow parks is that at Springburn, where Mr. Thompson, Mr. Whitton's lieutenant in charge, always has a display of bloom, if not outside, at least under glass. During spring, summer and autumn the old quarry, which has been converted into a rock and water garden, has been delightful and an object of pleasure to the many. The rock plants, shrubs and water-loving subjects have been planted in good masses, as is appropriate to a place of its size, and they have been exceedingly good. If they have a failing, it is one which would not be expected in a district such as that—too rapid growth, as a rule. *Nymphaeas* and other aquatics have been excellent; moisture-loving and other *Primulas* have thriven well; and *Saxifragas* and many other alpine have proved their value, even in a Glasgow park.—S. A.

Aquilegias in Pots.

—Although there are many gardens where a regular practice has been made for a long time of potting up *Aquilegias* for the decoration of the conservatory in late spring, there must be a considerable number in which it is never done. Plants which are "rising two" are the most satisfactory, but the strongest of



THE NEW GOLD MEDAL ROSE MODESTY. (See page 477.)

be left till last. When storing late-keeping Apples, care must be taken that all fruits which have been bruised or damaged by insects are removed from the good ones. The Apple crop promises to be heavy in most districts. In parts of Nottinghamshire the crop of Bramley's Seedling is a record one, and it may be a difficult matter to store all the fruits in the ordinary fruit room. The best-keeping varieties may be placed in heaps in a cellar or any other cool chamber which is not too stuffy.

the seedlings sown last February may be used with good effect in 6-inch pots, two or three, according to size, being put into each. Pot up at once and place them in shade, keeping the soil moist, not wet, so as to encourage the growth of new root fibres. They should be grown in a cold frame with abundance of air on every possible occasion, and in the last week in February or the first week in March introduced into gentle heat where they can still have plenty of air. The long-spurred varieties make very elegant specimens.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Solanum crispum.—Concerning the pruning of this beautiful shrub, Sir Herbert Maxwell, Bart., Monreith, writes: "The advice given in a note in THE GARDEN of September 18, page 455, to prune this fine shrub 'fairly hard in November' is likely to lead to disappointment for those who follow it. As the flowers are borne on the previous year's growth, the only time to prune it, if pruned it be, is immediately after flowering in July. But it is never so lavish of flower as when left unpruned. In mild districts it does not require the protection of a wall, and should be planted in such a place as it may fill with its rampant growth."

The Flowering of Wulfenia corinthiaca.—You inserted a note of mine on May 29 on the flowering of Wulfenia corinthiaca. It may be of interest to state that the same crown that flowered so well in that month had a second flowering in July of seven fine spikes (or heads). These have duly seeded, and now in September two more spikes have flowered. This seems rather an unblushing record for so shy a subject.

Linaria alpina.—With regard to Linaria alpina, to the perennial nature of which Sir Herbert Maxwell testifies in your issue of September 11, page 443, it seeds itself so freely on my rockery as to be a (delightful) weed, and has made a solid mat of 2 feet square on a tiny moraine. On two occasions I have collected (on a Pyrenean moraine) a very attractive form of it with lemon-coloured lip instead of the usual orange. On a third occasion I failed to find a plant of it. I shall be glad to know if this is a distinct species or merely a sport. L. H. EVANS, Goodnestone, Canterbury.

A Rare British Plant.—I recently found in a field near Chessington Church, Surrey, a pure white variety of the red Bartsia (Bartsia Odontites), and as I can find no mention of it having been found in either the Floras of Surrey or Kent, or by Hooker, Bentham or Babington in their Floras of the British Isles, I think it must be of rare occurrence, and shall be glad to hear through THE GARDEN if any of your readers have met with it in their rambles.—H. CHARMAN, 1, Mill's Road, Hersham, Walton-on-Thames. [We know of no record of this having been found, and it is evidently very rare.—ED.]

"Somewhere in France."—Our soldiers are mindful of their peaceful pursuits even in time of war, and when relieved from the trenches there is nothing, to those who are interested, half so refreshing as the study of flowers and gardens. In the wreckage of gardens are seen plants of interest that bring to the warrior thoughts of home, as instanced in the following observations sent to us by Sergeant G. Cowley, 2186 D Company 8th Royal Sussex Pioneers British Expeditionary Force: "There are many gardens round here. It was only this afternoon, when I was in charge of a party making dug-outs, that I strolled round a garden and found some beautiful Gou ds. I see they have been cut now. Close by was an Almond tree laden with fine large Almonds. While working in a fresh wood yesterday, I was very much surprised to find the mauve Crocus speciosus growing wild in large quantities. Is this the home of this Crocus? [It has probably been cultivated there, or it may be an stray from a garden. Crocus speciosus is a native of

Eastern Europe and Western Asia.—ED.] I tried to get a bulb, but found they were a good way down in the earth, or, rather, leaf-mould. The flowers were as fine as any I have seen in England, and, if anything, longer on the stem."

Eucalyptus in a Norfolk Garden.—Seeing in a recent issue of THE GARDEN a correspondent writing of Eucalyptus globulus in a Norfolk garden, I enclose a specimen of Eucalyptus which is now in full flower with us, and has flowered regularly and profusely for the last five or six years. The tree is now about eleven years old and about 16 feet high. It was planted here when about 18 inches or 2 feet high, and was given by Mr. Henry Elwes of Colesborne.—(Mrs.) E. ELWES, Congham House, King's Lynn. [The



A FRUITING SPRAY OF THE HARDY
EUCALYPTUS GUNNII.

spray sent is that of Eucalyptus Gunnii. It is probably the hardiest of the various Eucalypts, and in a young state, at all events, is certainly harder than E. globulus, the subject of our previous note. We are indebted to the correspondents who have informed us of the flowering of Eucalypts in Norfolk, for such records about plants usually associated with the South and South-Western Counties are always interesting.—ED.]

Tulip Notes.—In THE GARDEN for August 21, I made mention of three good Tulips, either for forcing purposes or planting outdoors. I would now like to add a few more names of varieties which have given excellent results here outdoors, where many thousands of bulbs have been planted during the last few seasons. Among the single

earlies Golden Queen, Goldfinch, Golden Prince, King of Yellows, La Grandeur, Grace Darling, Couleur Cardinal and Keizerskroon have, as before stated, all been excellent. Couleur Cardinal is grand for massing. The best Cottage Tulips have been Mrs. Moon, Leghorn Bonnet, Moonlight, Primrose Beauty, retroflexa, Orange King, vitellina and Prince of Orange. The usefulness of some of these charming varieties for vase decoration gives them an added claim to recognition for extensive planting. Among our later friends the Darwins, the following were all good: Baronne de la Tonnaye, Clara Butt, Edmée, Fanny, General Köhler, Kate Greenaway, Peter Barr, Pride of Haarlem, Psyche, Rev. H. Ewbank and Suzon.—H. TURNER, Serlby Gardens, Bawtry.

The Pomegranate.—The interesting and instructive note by I. L. Richmond on page 462 of the issue of THE GARDEN for September 18 stirs me up to put forward the claims of another form of Pomegranate. This is the Dwarf Pomegranate, Punica Granatum nana, a charming miniature form. It is so neat in habit, and so much freer in flowering than the double form, that for a small space on a well-sheltered south wall few plants are more suitable or make a more brilliant display from August until the sharp frosts come. I grow it here on the wall of an Orchid-house, and as the path is rather narrow there, we have to keep the Pomegranate very close to the wall and shorten back more shoots than we and the plant like, and therefore in a season after it has been shorn back we lose many flowering shoots. Even then the tops of all shoots tied in bear bunches of the glowing scarlet flowers. It also makes a good pot plant for the conservatory, or for standing out in a vase or on a terrace in summer.—E. A. B., Waltham Cross.

Exhibiting Vegetables.—The remarks on this subject by Mr. Chapman, page 446, issue September 11, are interesting. I do not think it is difficult to find a reason why vegetables are not more prominent at shows, especially this year. The reason is lack of labour, coupled with a lack of interest by employers. There is no disputing the fact that to produce vegetables in the manner alluded to by Mr. Chapman means an outlay in seed, labour and space, and as long as employers obtain what they require for their personal use, the matter ends. When this occurs, a gardener is much hampered in his resources, even though he would be and is enthusiastic in his endeavours to emulate the few whose produce appears on the exhibition tables at leading shows. If these reasons are correct, then there is small prospect of an increase in the number of exhibitors of vegetables in the near future. It is quite true that prominent men in the vegetable world can be counted on the fingers of two hands; more is the pity, because I am positive there is a future before any youthful aspirant in this phase of horticulture who has cultural knowledge, convenience, and an aptitude for the raising of new varieties of vegetables. Although many may say we have quite enough Peas, Potatoes and so forth, there is ample room for more variety in almost every section. There has been, and always will be, a difference of opinion as to what constitutes quality in vegetables; so many persons (mainly those who do not grow them) argue that a large Onion is not equal to a small one, and in the same manner, that large-podded Peas are not equal to those bearing half the number of Peas in a pod. True, Cauliflowers, Cabbages, Vegetable Marrows and Carrots may be grown so large as to be objectionable, but

no expert would err in this manner. Arranging the various collections attractively is important, and no doubt this phase is much further developed now than formerly, thanks mainly to Mr. Beckett, who can safely be called the pioneer in this respect. When one thinks of the crude methods of exhibiting thirty years ago, when all collections were crowded into a flat box, where they could barely be seen, and compares them with what can be seen at the leading shows, especially those displays under the auspices of the Royal Horticultural Society, one wonders how such could have been tolerated so long.—E. MOLYNEUX, *Swanmore*.

The Water Elder.—Just now (the second week in September) there is nothing more beautiful in the garden than the thickly berried branches of the Water Elder (*Viburnum Opulus*), of which I send some examples. They have not yet attained their full beauty, for in a week or ten days their fine red colouring will be deeper still and the berries will have a translucent quality like that of ripe Red Currants. The berries are unusually large and abundant this year; the end of every twig is heavily loaded, and the bushes would be broken down if we had not propped them in time. In some of the bunches of fruit from a single cyme there are as many as eighty berries, each berry having a diameter of fully three-eighths of an inch; some are nearly half an inch. It is a native shrub or small tree, growing in damp ground and by wet ditches in water-meadows, but is so accommodating that it seems to thrive equally well on our dry, sandy hill. Everyone knows the Guelder Rose (the garden variety of the same shrub), with its great white balls of bloom in May. The wild plant has a flat bloom, with the conspicuous sterile florets forming an outer ring to the smaller, less showy fertile florets within. In the Guelder Rose all the florets are sterile, and as they are larger than the fertile, the flower has to take a ball form in order to give them space. Every garden should have both; the Guelder Rose for early summer bloom and the Water Elder for glory of autumn fruit.—G. JEKYLL.

Daffodil Olympia.—This, figured and described in *THE GARDEN* for September 11, page 443, is certainly a monster and striking variety, but I consider it rather too much to say that the name of Van Waveren will go down to posterity because of Olympia. Even the most ordinary individual objects to the wasting, pinched appearance of three of the perianth segments. I admire the ragged trumpet, but the perianth takes away half its beauty. If Van Waveren is to be remembered by any one of his Daffodils in commerce, surely Cornelia holds the palm. To me Cornelia is a gem among the lower-priced trumpets, and last season six bulbs in a clump in my front garden produced twelve flowers of such striking superiority

that even the most casual passers-by remarked upon it. Doubtless many thought it was Emperor or some such variety that is popular, but all with any glimmer of garden knowledge instantly realised that it was something out of the ordinary.—T. A. W.

How to Store Vegetable Marrows.—The crop of this most useful vegetable comes in when there are numerous summer and autumn vegetables for the table. Many people do not know that Marrows will keep very well, and so they cut and use them, allowing the more valuable Peas, Beans, &c., to grow too tough and coarse to eat. To store Marrows is easy, and here from extensive trial we find the following method good: Cut the fruit when it is



A WELL-BERRIED BRANCH OF THE WATER ELDER.

just turning yellow (a sign of ripeness), on an afternoon when it is dry. If at all damp, wipe with a cloth. Spread out the fruits on a shelf in a light and cool airy room, and turn them over occasionally during the next month or two. The room we use gets afternoon sun, and the Marrows are not harmed in the least if the sun reaches them. We find they will keep till nearly Christmas, though, of course, they are used as required in the autumn and winter months. The only difference is that the flesh of the stored fruit is yellower than that cut straight from the bed and used, but the flavour is not impaired in the slightest. I hope this advice may be useful to readers who are not "in the know."—E. T. ELLIS.

STORING VEGETABLES FOR WINTER USE.

A CORRESPONDENT who has a large, dark cellar at his disposal asks for information concerning the storing of vegetables therein for use during the winter months. For a number of vegetables a cellar is quite a good store. It is generally frost-proof except in very severe and prolonged spells, and even then can usually be rendered suitable by covering any vegetables that are susceptible to frost with coarse mats or sacks, taking care, however, to remove these immediately all danger is past.

Undoubtedly the most important vegetable to be stored for winter use is the Potato, and for this a dark, frost-proof cellar possesses several advantages over the outdoor clamp, though many growers prefer the latter. In the cellar, however, the Potatoes are always available for use, whereas in very frosty weather it would be dangerous to break open the clamp. Also, owing to the fact that the tubers are kept dry, any disease that is present will not develop so rapidly as under the damper conditions that exist in the outdoor store. Before placing Potatoes in a cellar they should be exposed to wind and sun for a few hours. Not only does this dry up external moisture, but appreciably hardens the skins. The tubers are best placed in one heap, keeping them away from the wall of the cellar, so that, if necessary, mats or straw can be placed between them and the wall. A little fresh air-slaked lime shaken between the Potatoes as they are stored will assist to dispel unwanted moisture, and possibly prevent the spread of disease. The cellar must be well ventilated for two or three weeks after the Potatoes are placed in it.

Carrots, Beetroots and Turnips can all be successfully stored in a cellar, and will keep fresh and good for months if properly managed. Unlike Potatoes, they do not need preliminary drying. It is essential, however, that all the leaves be cut off, otherwise they will decay. Carrots and Turnips can be cut close to the root, but with Beetroots it is advisable to leave about an inch of the leaf-stalks. Where only comparatively small quantities of each are required, it will be found more convenient to store them in flat boxes, such as empty champagne cases or egg cases. A layer of sand or finely sifted earth ought to be first placed in the box; then a layer of roots, packed in neatly and closely; then another layer of sand or earth, the process of alternate layers being repeated until the box is full. Of course, a heap could be formed in a similar manner on the floor, but the boxes are much cleaner and more convenient. The use of sand or earth in this way prevents the roots

shrivelling and preserves their flavour. Salsify, Scorzonera and Celeriac are other vegetables that can be successfully treated in the same way. So also could Jerusalem Artichokes and Parsnips, but both are best left in the ground where they are growing, sufficient being lifted for use as required. Where this plan is adopted, however, it will be necessary to cover the beds with a thick layer of straw, bracken, or other dry rubbish during very frosty weather, otherwise it will be impossible to lift the roots when the soil is frozen hard.

A cellar is not, usually, a good place in which to store Onions. These keep best when tied in bunches or ropes and hung in a light, airy shed, but protected from frost. If bunching or roping cannot be adopted, the Onions should be laid out thinly in shallow boxes or trays. Whichever method is adopted, it is essential that they be given plenty of fresh air. Leeks and Celery keep best where they are grown if given protection from severe frosts. Both may, however, be successfully stored for some weeks in moist earth or sand in a cellar. The leaves should be trimmed off, but the roots left intact and stored as advised for Carrots, Turnips and Beetroots. Cauliflowers that are ready for cutting may be kept good for several weeks if lifted with a good mass of roots to each. The roughest outside leaves ought to be removed and the roots embedded in moist earth, which, for convenience, may be in a large, flat box. It must be remembered, however, that Cauliflowers, in common with other members of the Brassica family, emit a rather pungent odour that would probably be unpleasant in a cellar.

Essential points to remember in storing all kinds of vegetables are to see that they are quite free from any disease or signs of decay; that Cauliflowers, Celery and Leeks are dry when put into the store; and that frequent inspection of these succulent kinds is desirable so that any decay which appears can be promptly removed.

LATE-FLOWERING BUDDLEIAS.

BUDDLEIA VARIABILIS is one of the most attractive of late-flowering shrubs. It was first discovered by Professor Henry in the mountains north of Ychang in 1893, and few gardens are now without this ornamental plant or one or more of its beautiful varieties. In general appearance it little resembles the well-known Orange Ball (*B. globosa*), which usually flowers in great profusion earlier than this, when its rich orange, honey-scented blossoms form a striking feature; whereas the flowers of *B. variabilis* are arranged in elongated, pyramidal-shaped racemes, and, as the specific name indicates, are somewhat variable, but usually pinkish lilac with yellow throat.

There are several varieties, but two of the best are *B. v. veitchiana*, with large, handsome spikes of flower, and *B. v. magnifica*, which is still larger and of a much deeper colour. They appear to be a great attraction for butterflies, which are constantly to be found on them, and undoubtedly this is one of the means by which pollination is assisted. These shrubs should be cut back hard in spring.

GRAPE VINES IN EARLY AUTUMN.

AFTER expending much thought and labour on the watering, feeding and training of the Vines from spring to the end of the summer months, it is very annoying to lose some of the Grapes through not knowing how to manage the structure in the autumn. An amateur cultivator said one day lately, "I have some Black Hamburg Grapes; the other morning I noticed a few of them were cracked; again, as each day passed, more berries cracked. What was the cause?"

The cracking was caused by too much atmospheric moisture and lack of ventilation. If this

were started sufficiently early and the crop is not too heavy.

If there is much colouring necessary after the first week in October, the process is very slow and rarely quite satisfactory. A black Grape, when perfectly coloured, should not show red in the least when a lighted candle is held behind the bunch at night. Every berry should show a deep purple-black.

Very careful ventilation and a little fire-heat at night should be the rule if the berries are not finished by September 25. Every day from that date onwards is of much importance.

Watering.—Feeding should cease after the berries are three-parts coloured, but some watering with clear water is necessary. The border soil must not be allowed to approach dryness; keep it in a medium state of moisture, and, when water

is needed, give it in sufficient quantity to percolate through to the drainage, applying it early on a very fine day.

The Leaves and the Laterals.—The welfare of the crop for next year must be a matter for consideration now. All surplus shoots must be cut off while they are young; healthy Vines will continue to produce these small sublaterals until the end of October. If left on the Vines they would obstruct the light and the passage of air through the foliage, and so interfere with the due ripening of the basal buds on the side shoots, which contain the embryo fruit for next year's crop. G. G.

A BEAUTIFUL PINE.

PINUS ARMANDII.

This ornamental Chinese Pine is coning quite freely at Kew. It has now been in cultivation in this country about eighteen years, the trees being large enough to judge of their value for the beautifying of our pleasure grounds and parks. Herbarium specimens had been collected by previous travellers in China, but the honour of first introducing the tree to British gardens belongs to Mr. Augustine Henry, who forwarded seeds to Kew in 1897. The trees raised from these seeds are now about nineteen feet in height, and produced cones for the first time in 1909. There are several cones on one of the trees this year containing, apparently, good seeds. A French missionary, Père Farges, sent seeds to M. Maurice L. de Vilmorin in 1895, and more

recently Mr. E. H. Wilson consigned seeds to the Arnold Arboretum, so that young trees are now fairly easy to procure. *P. Armandii* is one of the five-leaved Pines. In appearance the tree resembles the Himalayan or Bhotan Pine, *P. excelsa*, and *P. Ayacahuite*, the Hickory Pine of Mexico. The cones of *P. Armandii* are shorter and broader than either of the two named, cylindrical, 6 inches to 8 inches long, and 3 inches to 4 inches in diameter. The leaves are shorter than those of *P. excelsa*, rather lighter in colour, and 4 inches to 6 inches long. *Armand's* Pine is widely distributed on the mountains of Western China, where it reaches a height of 50 feet to 60 feet. Altogether it promises to become a very ornamental Pine, particularly for lawn specimens, the rich green grass forming a pleasing foil to the silvery hue of the leaves.



PINUS ARMANDII. A NEW AND ORNAMENTAL PINE NOW CONING AT KEW.

cultivator had left the top ventilators open a little all night and a chink of air on at the front, and then opened all the ventilators more very early in the morning, he would have lost no berries of this variety through cracking, even if the atmospheric moisture had been too great. After the Grapes are ripe, only sufficient atmospheric moisture should be maintained to keep the leaves in a healthy condition; and if amateur cultivators, generally, will pay close attention to these details, they will not lose the fruits of their labour.

The Colouring of Late Grapes.—Few late black Grapes colour satisfactorily after the second week in October. To keep long and well, black Grapes, such as Alicante and Gros Colmar, should be thoroughly coloured by September 25. Usually, the process of colouring is very steady and complete by the date named if the Vines

THE JAPANESE WIND- FLOWERS.

IN the waning days of autumn, when the morning and evening mists have enshrouded the flowers of the outdoor garden and, in too many instances, marred their beauty, we appreciate those that come out of the ordeal unscathed. Among the most beau-

tiful of these are the Japanese Windflowers or Anemones, tall yet graceful flowers, quite unlike the dainty little native species that bespangles the greensward of our coppices in the gusty days of spring. These Japanese Anemones, by their very stature and bearing, are admirably adapted for grouping in the herbaceous border, in large lawn beds, the edges of shrubberies, or by the side of a pond or lake. They are never seen to better advantage, particularly the varieties with white blossoms, than when massed, in large bold groups, with a background of dark green foliated trees, these serving to accentuate the glistening purity of the daintily poised blossoms. When to the trees water is added, in which the flowers are reflected with a shimmer of light and shade, we begin to realise how indispensable these hardy plants are in the garden at this season. Nor must we overlook their usefulness for cutting. It is almost impossible to arrange them inartistically, their long stems and light, graceful flowers enabling the veriest tyro to create a picture of sublime beauty with these and autumn foliage.

Fortunately, the cultivation of the Japanese Anemones does not present any great difficulties. What they do appreciate is deeply cultivated and well-manured soil, and that with a good proportion of clay in it. One is often asked to name plants that will thrive in clay soil, and the Japanese Windflower is one of the best.

As the roots are long and thick, with but few fibres, transplanting is not advisable more often than is absolutely necessary; indeed, a good rule to follow is to disturb the plants as little as possible. In forming new beds or groups in borders, the planting may be done in late autumn or early spring, and pieces of root with as many fibres as possible should be given preference to those of a less fibrous character.

Contrary to a widespread belief, the original species has rose-coloured flowers with large, bold foliage, and a very useful plant it is. A variety named Honorine Joubert has pure white flowers, and is still one of the best for general purposes. Others with white blossoms are Whirlwind, very large and semi-double; and sylvestris, smaller and earlier, with dwarfer habit. There are several beautiful varieties with pink or rose coloured flowers, notably, Queen Charlotte, very large;

close association with Bulrushes and Sedges. The botanical name of the Tawny Balsam is *Impatiens fulva*, and although it is not a British plant in the strict sense of the term, it is an estray that has so far naturalised here within the last half century that it is now spreading rapidly in certain localities. Its singularly pretty flowers, borne on slender stalks and nodding in the breeze, cannot fail to attract attention. The flowers are orange-coloured, heavily marked with reddish

brown spots, with the open mouth of the horn-shaped sepal turning inward. The leaves are oval or ovate and coarsely toothed. From a botanical point of view, the most interesting feature of this *Impatiens*—and the same applies to other species—is seen in its wonderful fruits or seed-pods. These, when ripe, are pear-shaped and turgid, and if gently touched the seeds are discharged with surprising force, owing to the elasticity of the valves of the seed-pod. This peculiarity has given our native species the appropriate name *I. Noli-metangere* or Touch-me-not, while the very name *Impatiens* is derived from impatient, in reference to the elasticity of the valves of the seed-pod. The Tawny Balsam, although so much at home in and around our waterways, is really a native of North America, while the yellow Touch-me-not, *I. Noli-metangere*, grows wild in various parts of Europe.

There is another *Impatiens* often seen in cottage gardens and growing anything from 5 feet to 10 feet in height; the flowers are purple or rose and sometimes almost white. This is *Impatiens Roylei*, once figured in the *Botanical Magazine* as *I. glandulifera*, which it closely resembles. It is an attractive plant, but owing to its rampant growth is apt to become a nuisance if left unchecked in the flower garden and shrubbery. All of the *Impatiens* named are hardy, and all of them annuals. Seed may be sown

either this month or in the spring, and once these interesting annuals are established, self-sown seedlings may be relied upon in succeeding years.

The garden Balsam, *I. Balsamina*, with flowers quite as double as a perfect *Camellia*, requires to be raised in frames and transplanted. If given a rich and highly manured soil, it is inclined to make very sappy growth at the expense of blossom. The flowers are variously striped and spotted, and range in colour from crimson to white, rose, buff, mauve and violet.

C. Q.



JAPANESE ANEMONE QUEEN CHARLOTTE WITH LARGE PINK FLOWERS.

rosea, semi-double; Autumn Queen, *crispifolia*, *elegans* and *Lady Ardilaun*.

NOTES ON HARDY BALSAMS.

ALONG the banks of the Mereway near Twickenham, large colonies of the Tawny Balsam may be seen flowering at the present time. The plants, attaining a height of about four feet, are growing both on the dry banks and by the water's edge in marshy ground and in

SEASONABLE NOTES ON CARNATIONS.

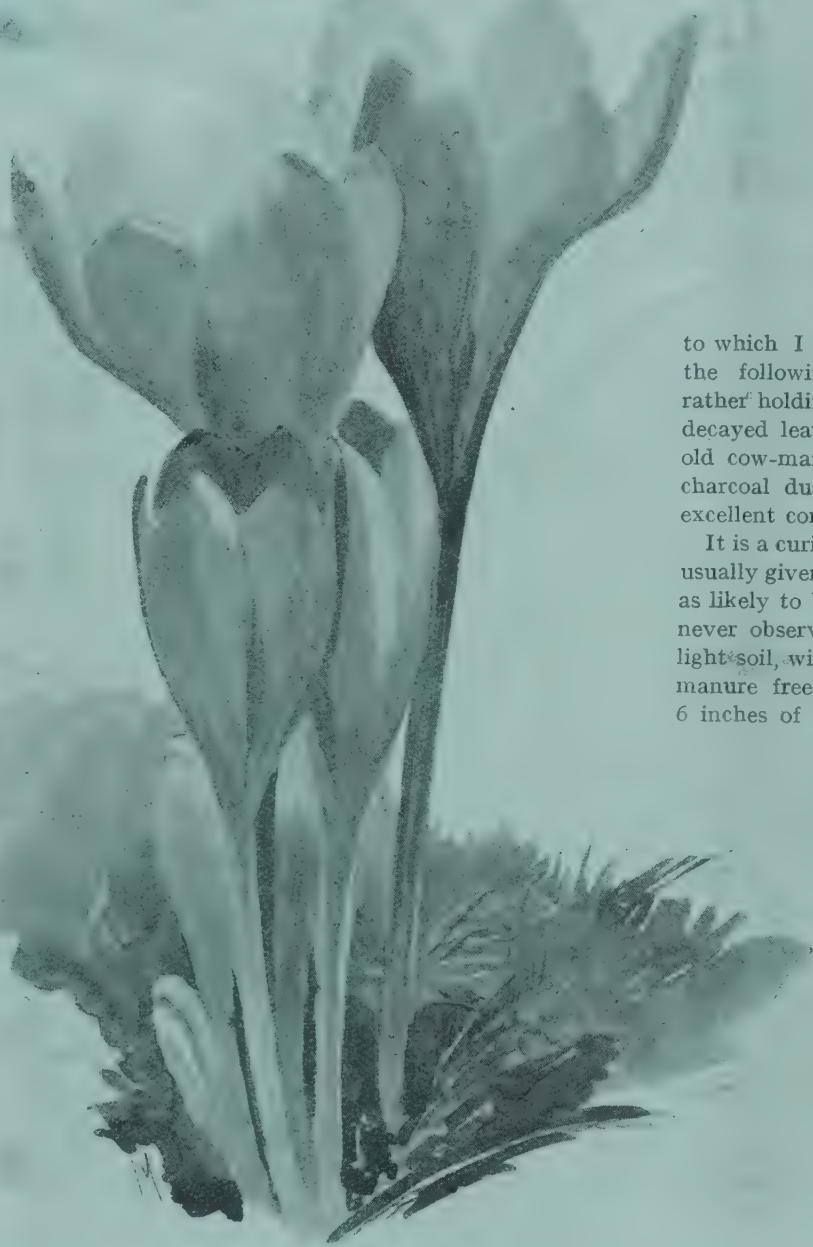
THE time has again arrived when Perpetuals must be transferred to the structure in which they are to bloom during winter and spring. It is needless to remark that the pots should be scrubbed and the wood-work and glass of the Carnation-house cleaned. Few of us neglect these simple sanitary operations. Shoots that require tying should be seen to, and if the soil requires it, a sprinkling of Carnation manure be applied to the surface soil of each plant. One of the greatest mistakes where continuous bloom is expected is to arrange the plants close together. It is true that close grouping makes a more effective display through the late autumn months, but the later flowering shoots are so weakened that they are really worthless; whereas, given ample space and light, these will be almost as vigorous as the shoots formed during summer. Abundant ventilation while the weather permits is also important. It is very remarkable that there are still people who treat Carnations as semi-tender plants, and even through the summer months in northern parts there are growers who shut down the ventilators nightly, and as a result disappoint their hopes without knowing whence the disappointment has proceeded.

Every Carnation grower knows how very important it is that the supply of water shall be regulated with the greatest nicety, and that a workman who errs in applying slightly too little does infinitely less harm than he who goes to the opposite extreme. Much the same applies to manurial dressings. A little may be very effective in increasing the size of bloom and deepening the colour, while a little too much will produce flabby petals and split calyces without number. As a rule, very few flowers will have split calyces provided the treatment is correct, the newer varieties being particularly notable for their strong calyces.

Some growers keep young Malmaisons through the winter in small pots; others give them a shift in autumn. The best period for this operation is from the middle to the end of September; and it may be noted here that drainage composed of very small bits of potsherd gives better results than moderately large nodules. The shift should not be large at this time, and if the compost is very firmly pressed into the pots, little water will be needed till about the end of January, that is, of course, provided the plants are wintered in a cool and dry structure. Though the plants do not appear to progress much, if at all, they are really building up a stout, thick stem, with abundance of roots slowly ramifying in the soil, and when spring comes they are in the very best condition

to leap into vigorous growth. A watch should be kept for the appearance of green fly, a pinch or a puff of tobacco powder, if caught in time, being sufficient to keep it under.

This is the proper time, too, to plant out border varieties. It must be remembered that the earlier they are planted, once well rooted, the better will they be established when winter comes, and consequently less liable to suffer from the vicissitudes of the weather. Wet or damp is the only thing inimical to the border Carnation. It is accordingly a good plan not to plant deeply. Keep the stem up, and, if a strong plant, support it with a short stick, rather than set it deeper and risk disease. In



THE MEADOW SAFFRON (COLCHICUM SPECIOSUM).

soil naturally conservative of moisture, the beds should be slightly rounded instead of flat, and lime in some form laid over the surface will be of value. Plants to be potted up should not be delayed either, having regard to the habit of the variety and seeing that strong-growing kinds shall have ample root room and the less vigorous ones not so much. I make it a practice, when new varieties are introduced at this time of year, to invariably grow these in pots. No matter how careful the vendor may be in lifting and packing, the layers receive a check, which is overcome with no loss when they are placed in pots, but this can hardly be expected if planted out.

R. P. BROTHERSTON.

THE MEADOW SAFFRON.

COLCHICUM SPECIOSUM is, without exception, the finest of all the coloured forms of this pretty and acceptable group of hardy autumn bulbous flowers. It is, indeed, like the noble Emperor

Daffodil among its fellows, calculated to excite the admiration of anyone, and in particular those making the acquaintance of it for the first time. Like the Daffodil just named, the Meadow Saffron is also the possessor of a bold

and vigorous constitution that fits it for a great variety of soils and aspects. Not that the latter will bear comparison with the Daffodil in the matter of multiplication, yet with care and discreet management a good stock may soon be obtained, and certainly no others of the genus are more worthy of all this care.

As for soils and the position most likely to suit the plant, and encourage also that rapid increase

to which I have briefly referred, I have found the following the most suitable: A bed of rather holding loam, with one-fourth of good half-decayed leaves and the same proportion of year old cow-manure. By adding good sharp grit or charcoal dust to the same extent, one has an excellent compost.

It is a curious fact that rare or choice things are usually given a mixture with a percentage of peat as likely to be the most useful. I have, however, never observed any benefit from doing so. In light soil, with the better kinds I have used cow-manure freely, and in this way: Digging out 6 inches of the soil and running the manure, on to the bed, to be deeply dug in below the corms, then levelling up the soil, and finally planting 4 inches deep. In this way and in a light, almost always workable soil the Colchicums thrive remarkably well, and give leafage that also is a guarantee of their success. I prefer to employ manure thus deeply turned in because of its cooling nature, and also because the leafage of these Meadow Saffrons, coming in spring-time, shall not suffer or be brought too quickly to an end by the first heat of the year. Given a deep and cool rooting medium, and, if possible, a partially shaded spot, their progress will be sure to give satisfaction. Of course, these Meadow Saffrons may be grown in

quite ordinary soil in the shrubbery, the border, and similar places, but the better kinds of Colchicum amply repay greater care in their cultivation. To increase them, lift every third season and divide and replant as soon as the foliage is fully matured. These plants are not benefited by a long season out of the ground; rather do they lose vigour when this is continued for any length of time. It should be stated that the example in the illustration is greatly reduced in size, and that the plant when well grown is fully 9 inches high. The handsome purplish rose flowers are strong and deep supporting. The typical species comes from the Caucasus, but there is also a pure white form in cultivation.

J. E.

BULBS FOR GRASS AND WOODLAND.

IN the early days of spring, when we have tired of looking upon broad expanses of seared greensward and beds of naked shrubs, we welcome with more than usual warmth those bright little heralds of spring, the so-called Winter Aconites, each of which has its golden, Buttercup-like flower set in a frilled collar of greenery that always reminds us of the ruffs of the Elizabethan period.

since Kew gave the lead some years ago, and where planting has been done with proper regard to effect and suitability or otherwise of the position selected for the various kinds, the result has invariably proved satisfactory. A word of warning is necessary to those who would plant bulbs in grass. This must not be cut until the foliage of the bulbs takes on a rusty or yellow appearance.

The Winter Aconite has already been mentioned, and where a sheet of yellow is desired in the month of January, this should be planted in quantity at once. It will thrive in grass, or in cultivated spots in the shrubbery, and, once established,

is *G. Elwesii*. A charming effect can be obtained by planting Snowdrops and the beautiful little blue Squills, *Scilla sibirica* and *S. bifolia*, together.

Mention of the Squills reminds one of that charming little denizen of the Alps so aptly named Glory of the Snow, but known to botanists as *Chionodoxa Luciliae*. This is brilliant blue, each flower having a white centre. It is suitable either for planting in grass or the shrubbery, and many use it as an effective carpet for beds of shrubs. A somewhat rarer and even richer-coloured kind is *C. sardensis*, its blossoms having that intense blue colour that we find in the Gentians.



DAFFODILS NATURALISED UNDER TREES. BULBS SHOULD BE PLANTED NOW.

Following closely on these Aconites, and sometimes keeping them company, come the Snowdrops, and from then onwards until the Wood Hyacinths have finished their display, and the virgin beauty of the Beech foliage has departed, the woodland and shrubberies may be kept bright and interesting with bulbous plants alone.

As planting-time is with us, there is good reason for drawing attention to the lesser-known bulb best suited for growing in grass, under the shade of large trees, for shrubberies and large beds of deciduous shrubs such as the Lilacs. The system of naturalising bulbs in such positions as those mentioned above has been widely adopted

seeds and perpetuates itself freely. Snowdrops are rather more difficult to accommodate, and if grown in grass, where they look exceedingly pretty, and where their flowers do not get soiled so easily, it may be, and often is, necessary to plant a few fresh bulbs each year, otherwise, and particularly on sandy soils, they will most likely die out in the course of a few years. Cool, loamy soil in the shrubbery or large beds is an ideal spot for them. If the soil is of a sandy character, plant the bulbs at least 6 inches deep. For naturalising, the common Snowdrop, *Galanthus nivalis*, is best; but a larger-flowered variety that may be used for more favourable positions

At present it is rather expensive for naturalising, but it might well be utilised in moderate quantities for large beds. For the same purpose the large-flowered *C. gigantea*, or *grandiflora* as it is sometimes called, is most effective. The flowers of this are twice the size of those of the well-known Glory of the Snow, pale lavender blue in colour, and the habit of the plant more robust.

From the *Chionodoxas* it is but a short step to the Anemones or Windflowers, among which we find several eminently suited for our purpose. One of the most beautiful of these is the Mountain Windflower, *A. apennina*, a dainty little plant some 6 inches high that transforms the place

wherein it dwells into a dense, waving mass of starlike, sky blue blossoms. Similar in form, and rather deeper in colour, is the Grecian Windflower, *A. blanda*. It flowers several weeks in advance of *A. apennina*. Of our native Wood Anemone, *A. nemorosa*, there are several excellent forms, the most charming of all being *robinsoniana*. This has large single flowers of pale lavender colour, and should be planted in large drifts. *Allenii* and Blue Bonnet, both having blue flowers, and *bracteata flore pleno*, or Jack-in-the-Green as it is often called, a double white variety, may all be planted freely. These Windflowers delight

For planting among hardy Ferns, where these are grown under tall trees, the dainty little hardy Cyclamens, which blossom in spring, are available, and their small but curiously shaped flowers form a pleasing contrast to the russety brown foliage of the Ferns, which all good gardeners allow to remain until new fronds are seen in spring. Two that may be planted freely are *C. Coum* and *C. ibericum*. There is little difference in the flowers, but the foliage varies, the former having plain green leaves and the latter a silver zone to each leaf. Of *ibericum* there are varying shades of colour, ranging from a white flower

with a crimson eye to blossoms of rich crimson. The Ivy-leaved Cyclamen, though it flowers in autumn before the foliage appears, is of interest in the spring, as its tufts of leaves are marbled with charming silvery tracings. The roots of these Cyclamen should be planted about two inches deep, and a fair proportion of leaf-soil ought to be present in the ground in which they are planted.

An article on bulbs for the woodland would not be complete without mention of the Muscaris or Grape Hyacinths, the prettiest of all being Heavenly Blue. At Daffodil-time this will transform banks or shrubbery into a veritable cloud of sky blue. Plant freely and in large colonies, as a bold effect is desirable. Other good Muscaris are *comosum* and *plumosum*. A charming little flower that one seldom meets

is *Puschkinia libanotica*, or the Lebanon Squill. It grows about six inches high and forms clusters of dainty flowers, which are, perhaps, scarcely bright enough for bold effects, but which are, nevertheless, beautiful in the front part of the shrubbery, where they can be seen at close range. The blossoms are semi-transparent and white, each segment being striped with blue, resembling a piece of old china. *Allium Moly* and *A. neapolitanum*, with yellow and white flowers respectively, and the Snake's-head Fritillary (*Fritillaria Meleagris*), a native plant suitable for a damp, grassy situation, must complete our list for the present, though many more might be added. Daffodils have been purposely omitted, as their merits and requirements are now well known. In planting bulbs for natural or bold effects, anything approaching formality of arrangement must be strictly avoided. In grass a large colony of one kind should be planted, and a few odd plants may well lead us on, as it were, to another cluster of good dimensions.

BULB PLANTING AND TRIAL GARDENS.

BY THE REV. JOSEPH JACOB.

SPEAKING in a general way, there are three parts of an ordinary garden in which bulbs may be planted: (1) the mixed border, (2) the parterre, where there is a collection of formal beds arranged in a more or less complicated design, and (3) the larger or smaller isolated beds which more often than not are cut out of grass.

Although it is the custom to write of bedding arrangements in the autumn, it must be very tantalising reading for many; for the greater the success of the writer in describing effective combinations and displays, the more he is able to make people's mouths water by putting the delights of a well-considered garden before them, the greater the aggravation to feel that all these joys are impossible without the previous preparation of the necessary little plants which under modern taste are an inseparable adjunct of the bulbs; or without a very serious expenditure upon young seedlings or newly struck cuttings. The purchase of Arabis, Aubrietias and *Cerastium tomentosum*, to name three of the most usual and useful of the plants employed, would be a large item where there is any considerable space or number of beds to fill.

On the principle of look before you leap, it seems to me that I might be doing a very useful thing if I were to suggest the formation of a *trial garden* where two or three of all sorts and conditions of hardy bulbs, annuals and perennials might be gathered together for reference and study. I have recently been reading a newly published book by Mrs. Frances King of Michigan, U.S.A. called "The Well-considered Garden." It is a pæan on the joys of harmonious colour blending in gardens, and although it is, naturally, written from an American standpoint, there is one chapter which insists upon a practice which in its far-reaching usefulness is most truly catholic; for is not such an adjunct of use, as Vincentius wrote, everywhere, at all times and for all people?

A deliberately planned trial garden is a rare thing to find. Yet if one wishes to ensure a harmonious blending of the occupants of our beds and borders, no suggestion can be more practical. There under our own eyes we will see samples of everything that seeks for admission, and we can note its shade or tone of colour and how it would look were this or that its bed-fellow; and what is of equal importance, we can test their relative times of opening, this last observation being perhaps of more particular utility with regard to spring arrangements and formal bedding. These are the questions which the trial garden will answer: Will there be sufficient of the foliage of *Funkia sieboldiana* above ground to act as a carpet to some deep crimson Darwin Tulip like Millet? Will a pale blue Forget-me-not like Queen Victoria or a rich dark one like Indigo Queen or Sutton's Royal Blue, set off the orange brick red of Tulip Prince of Austria? Which of the pale Aubrietias, like Bridesmaid or Lavender, will act as the best foil to a dark Tulip like Viking? Is there any difference in the time of blooming between *Chionodoxas Luciliae*, Boissieri and *Tmolusii*? How does *Agapanthus umbellatus* do if left out all the winter? The questions that might be asked are more in number than the sands of the seashore. Every gardener, according to his knowledge and inclinations, will have different



INTERIOR OF MESSRS. GEORGE BUNYARD'S FRUIT ROOM.

in a shady position, and thrive well under large trees, especially where the soil receives some slight cultural attention.

The ordinary florist's Crocuses in yellow, white and varying shades of blue are frequently used for planting in grass, but there are two lesser-known kinds with more refined flowers. One that opens its flowers early is *C. susianus*, or Cloth of Gold as it is known to some. When the flower-buds appear, and before they open, their colour is a rich glossy brown; but when the petals fall back and reveal the golden interior, the plants do, indeed, form a carpet of gold. This Crocus may be planted freely in grass or in the shrubbery. Flowering at nearly the same time, but in some localities rather later, we have in *tommasinianus* a Crocus of more than ordinary beauty and a plant for naturalising in the grass. The flowers are clear lavender blue, with a silvery sheen on the exterior, the beautiful orange stigma in the centre adding not a little to its charm.

ones to submit. The trial garden will answer them all.

All the time that the old stock favourites are being used in the parterre or in the isolated beds on our lawns, we can in this testing station be preparing fresh surprises for our friends and new and greater pleasures for ourselves.

The time to establish such a garden is the autumn. Its size will be determined by the work that will be given it to do and the class of vegetation with which it will be filled. For testing blending, timing and doing it is, and always must be, invaluable. How is it, then, that we so seldom find one even in our large establishments?

It may be because such an idea has never occurred to the owners or managers; it may be because they have never realised its possibilities or the deep interest which it is bound to create; it may be that journal writings and catalogue descriptions are too slavishly relied upon.

But have these never failed you? Have you never had surprising jars of colour when you have gone entirely by a list? Or, when you have seen the self-same arrangement for the fourth or fifth time, has not the idea of a change ever occurred? Has not "let well alone" sometimes palled upon you? Try, then, a trial garden. Here failures instruct and lessons enthuse.

FRUIT ROOMS.

NEXT to careful growing and development of fruit is the preservation of it for use over a long period. For this purpose no better form of fruit room can be desired than the one we now illustrate, which is inexpensive, and yet answers so well that Messrs. Bunyard's exhibits of late-kept fruit at the Chelsea Show have become a feature of that meeting.

The main points are to use the natural earth for the floor, in order to keep it just damp; when this is secured, the timber used does not cause the fruit to shrivel. Pears are kept from July to April, and Apples from July to June. Cut flowers, &c., can be kept fresh in the summer in the house, but no Potatoes or Onions should be stored in it, as they are apt to flavour the fruit. Large fruit is laid in single layers; the smaller dessert fruit can be three or four deep, as late sorts keep sounder in this way.

The fruit house illustrated is at the Langley Nursery, near Slough, and was used for many years by the late firm of Messrs. J. Veitch and Sons. It is about 35 feet long, 13 feet wide, 6 feet high to eaves, and 10 feet to ridge (inside measurements); the sides and roof are thatched with straw, with heather on the outside, and are about 1 foot to 18 inches thick. It is provided with padded shutters to the windows and ventilators, and an outside door of the same material about 5 inches thick, as non-conductors to heat and cold. It is entered by double doors, over which and at the opposite end are windows with ventilators, all of which have also shutters on the inside to control the light and air. The whole of the inside is lined with match-boarding. There are four tiers of stages around the sides, 2 feet 6 inches wide and 1 foot 6 inches apart, formed of battens similar to a greenhouse stage. In the centre is an exhibition table 3 feet high and 3 feet wide. The paths are 2 feet 6 inches wide. The whole of the interior lining and stages is of white deal.

ROSES IN YORKSHIRE.

ONE of the problems confronting amateurs with limited means, and yet with some claims to artistic taste and sense of colour, is the difficulty of adding various new Roses and yet preserving that balance of colour, blending of tones and shades, that ultimately make or mar the general effect of the whole garden, be it large or small. This is always my own problem when I pay that annual visit to the nursery and see long rows of one variety after another, well aware that I cannot plant six each of all the newest and best. However, success is all the sweeter after having made and subsequently remedied mistakes of this sort. One of the varieties that seems to ask for a bed to itself is

Lyon, for either in the garden or vase its rich tones of salmon pink and lobster red seem to defy competition, and cause other fine colours to appear at a disadvantage. One or two varieties, however, I find may be planted in conjunction with Lyon, with pleasing results. One of these is

Lady Pirrie, a deep coppery salmon with a suspicion of fawn, a delightful combination of colour. This variety has proved a very free and abundant bloomer here.

Mrs. Alfred Tate, the colour of which is very similar to Lady Pirrie, but coppery red rather than salmon tone, is also an excellent bedding Rose, with the form and habit of Betty, and is invaluable for table decoration. It is a great pleasure to see such a dainty type of Rose

few Roses with many petals that opened well throughout the very showery July and August.

Mrs. Herbert Hawksworth, ivory white, with large, globular flowers, was continuously in bloom. This is undoubtedly one of the very best of the whites or creams. Its habit of growth is very vigorous and of great value here in Yorkshire, where comparatively few white Roses repay the grower. Second only to this is

Mrs. Herbert Stevens, another white of very graceful growth and a prolific bloomer, giving us quantities of long, pointed blooms of perfect shape. Moreover, it blooms in spite of rain.

Mabel Drew is another successful Rose. Its colour is deep cream, and has large, full and well-formed flowers of refined shape. It blooms with me as freely as Mrs. David McKee, and is a welcome acquisition to the garden.

Lady Greenall.—Here is a Rose that worthily upholds the reputation of "Newtownards." The colour is pale buff, opening to deep yellow; very large and handsome flowers, held on long, erect stems; the foliage is an attractive bronze, and with me free from mildew.

Lady Downe.—This variety I planted last autumn on the recommendation of a friend, and it has fully justified its place in the garden. The colour is a deep buff, passing to a still deeper yellow, which, however, pales off very much in the fully opened blooms. It is very fragrant and also appears mildew-proof. It reminds one very much of Mme. Ravary, a variety which it rivals in its freedom of growth. Another charming little Rose that must be mentioned here is

Mrs. Peter Blair, a pure lemon yellow, producing quantities of perfect-shaped flowers in great



THE FRUIT HOUSE AT THE LANGLEY NURSERY, NEAR SLOUGH.

succeeding in this strenuous climate. Yet another Rose of the Lyon type is

Willowmere, a lovely deep peach pink, a sturdy and erect grower that has produced perfect blooms here in abundance. This, in my opinion, is a Rose that will become very popular when better known.

Mrs. Amy Hammond.—This is a Rose that pleases me very much. Its colour is a very pale creamy salmon, but with such large and finely built blooms and delicate scent. It is one of the

profusion. It is evidently a very hardy variety, and for that reason alone is worthy of note by growers who have a cold and exposed situation to contend with.

Mrs. Frank Bray.—This is considered by some growers to be an improvement upon Mme. Ravary (an opinion I do not share), yet it is a most excellent Rose, a deep coppery écu with the faintest suspicion of shell pink, and worth growing for the beautiful buds. A fine buttonhole variety.

Roundhay.

E. WATERS

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Strawberries in Pots.—During times of hot, dry weather the plants will need close attention to watering. Stimulants also must be more frequently afforded now that the pots are full of roots. Soot-water is an excellent stimulant for the Strawberry, and may be given at least once a week. If the plants are too crowded, they should be thinned out, for it is essential that they get all the sunshine and air possible in order to thoroughly ripen the crowns. A spraying once a week with a mildew specific will keep the foliage free from this pest.

Early Pot Vines.—The Vines which have been grown for supplying fruit early next May should now be thoroughly matured. About the beginning of next month they may be shortened to the desired length. They may then be placed in an exposed position outdoors till the beginning of November, when they must be placed in the forcing-house. The Vines which are likely to give the best results are those of medium strength and with short-jointed growths.

Early Permanent Vines.—The Vines which are to be started into growth early in November should be ready for pruning the first week in October. Old-established Vines give the best results for very early forcing. It is not prudent to prune very old Vines back too hard; in all cases three or four good buds should be left after pruning. Where there is room to lay in young growths, this should be done, as it is from such that the best bunches will be obtained. The Vines should be subjected to a thorough cleaning. If mealy bug is troublesome, all the loose bark must be removed before scrubbing the rods with a strong insecticide. The house must also be well washed and the walls limewashed. The borders must then be relieved of 2 inches or 3 inches of the surface soil, replacing this with fresh materials.

Plants Under Glass.

Violets.—The plants must now be placed in their winter quarters. A shallow pit is the most suitable structure in which to grow Violets in the winter. Chopped loam and naturally decayed Oak or Beech leaves make an excellent compost. The materials must be elevated quite near to the glass, as the plants require all the light possible. Before planting, dip the foliage in an insecticide as a precaution against red spider. Plant firmly and thoroughly soak the materials when finished. Keep the frames close for a few days till the roots are again active, then gradually inure the plants to cooler conditions, eventually removing the lights altogether, except when sharp frost is imminent.

Tree Carnations.—These plants must now be given a mean temperature of 50° or 55°. The earliest batch will now be in need of a little stimulant, but this must not be overdone. Syringe between the plants on fine days, but do not drench the foliage. If cuttings are available, a batch may be struck now.

Spiræa.—Retarded roots of this useful plant may now be started into growth. A moderate temperature is necessary till growth is well advanced. They may then be placed in a warm, moist atmosphere. These plants need abundance of water at the roots.

Coleuses.—Where these are grown from cuttings, no time must now be lost in getting these rooted. Insert the shoots around the sides of small pots and place them in the propagating-case. They must be examined every morning, removing dead leaves, or many of the cuttings will be lost through damping.

The Flower Garden.

Anchusa italica.—To keep a true stock of this beautiful Borage, the old plants should be lifted every two years, retaining the most promising roots for replanting. It is wise to pot up some of the pieces and winter them in a cold frame, planting them out in the spring. The plants left out in the border must be protected by placing ashes around them.

Dahlias.—Beds of these beautiful flowers are often spoilt by early frost. Where practicable, the beds should be protected with tiffany or something similar. See that the plants are well supported

with strong stakes as a precaution against autumnal gales.

Heucheras.—These useful plants may be increased by inserting cuttings, which are now plentiful. A batch should be struck every year, as old plants do not flower so freely as young ones. The cuttings will readily root in boxes of sandy soil. Keep them close in a cold frame till they are rooted, then gradually harden them off. They may be wintered in frames and planted out in the spring.

The Rock Garden.

Bulbs.—Many of these may now be planted in the rock garden. The smaller-growing Narcissi, Muscari, Chionodoxa and Scillas, may all be grown in small rock gardens. In bold schemes of rock gardening many of the May-flowering Tulips may be planted. The beautiful *Habranthus pratensis* may be planted in sheltered nooks; but it must be exposed to full sunshine. Anemones must be planted freely among the rocks. *A. apennina*, *A. blanda* and *A. alpina* are very showy subjects for the rock garden.

The Kitchen Garden.

Late Peas.—A good watering with diluted drainings from the farmyard will considerably enhance the filling of the pods. Tits are often very destructive among late Peas, but they may easily be prevented by covering the rows with fish netting.

Carrots.—The main crop of Carrots must now be lifted. The roots should be carefully lifted with a fork, and, after they have been carefully selected, the best may be placed in their winter quarters, leaving those which are blemished for immediate use.

French Beans.—A sowing of a good forcing variety, such as Osborne's Forcing or The Belfast, may be made now in pots. Place the pots in a warm, moist house, and when the Beans are through the soil keep them near to the light and syringe them twice daily.

Beet.—If this valuable crop has not already been taken up, no time must be lost in doing so. Take up the roots with great care, as the least damage will spoil them. They may be stored in sand in a cool shed. E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

The Flower Garden.

Border Carnations.—In wet districts the layers are much better lifted and either potted or planted fairly closely together in cold frames, where they should remain until March, giving plenty of fresh air at all times, except during hard frost. This work should now be attended to. After potting or planting, very little water will be required, and, as it encourages rust, care should be taken that it does not touch any part of the foliage.

Roses.—Where Roses are required to be grown on their own roots (and this has its advantages in many cases), cuttings should now be put in sandy soil in frames. Some varieties, such as Dorothy Perkins, root very readily, while others are more difficult to strike. In all cases it is best to get cuttings with a heel attached, choosing medium-sized growths which are fairly firm or ripe.

Spring Bedding.—As most of the summer-flowering plants are becoming very untidy, they had better be removed without further delay, even if they have not been actually cut down by frost. The spring-flowering plants can then be put in their permanent quarters before the more severe weather arrives, which very often prevents this work being carried out expeditiously.

Rock Garden.—Many subjects having a herbaceous habit are quite ripe and ready to be cut over. This should be done and a general overhaul given to maintain a tidy appearance. Bulbs which are to be planted in this garden should be got in as soon as procured.

Zonal Pelargoniums are now liable to be injured by frost, so if any cuttings are not yet

under glass, they will be safer if removed without delay. Keep in houses where there is an abundance of ventilation.

The Kitchen Garden.

Cauliflower.—There is usually a glut of this vegetable at this season, and also a danger of its being injured by an early frost. In view of this, any which are ready for use and cannot be consumed could be lifted and hung up in a damp cellar or shed until required. Any plants inclined to be late in forming heads might be lifted into a cold frame if there is space available.

Runner Beans.—As long as frost does not injure the plants, the pods should be kept closely picked off as soon as they are large enough to use. This tends to encourage the production of more young pods.

Peas.—The crops obtained from late sowings depend very much now upon the weather for the next few weeks. Should the ground be at all dry, a watering had better be given, to which some stimulant has been added. Any exhausted crops remaining on the ground should be cleared up and burnt on the spot, after the Pea stakes have been gathered and put in store ready for use another year.

Lettuce.—During a very wet period these are liable to be spoilt through many of the leaves damping. Where portable frames are available, these should be placed over them, and the lights kept tilted to admit all air possible.

Fruit Under Glass.

Pot Fruit Trees.—Before the leaves fall is the best time to repot and generally overhaul the trees. The small trees in 10-inch to 12-inch pots must be repotted annually. Larger ones do not require disturbance for several seasons if the drainage is kept in order and a top-dressing given to keep the surface roots active. The soil used must be good fibrous loam, well enriched with artificial manure of a lasting nature. To this should be added a good proportion of lime refuse and charcoal to keep the soil open and sweet.

Peaches and Nectarines growing in borders which are unsatisfactory should be attended to as soon as the wood is sufficiently ripened, as it is much better to transplant before the foliage drops. Before commencing, the trees should be shaded if the weather is at all bright. If the drainage is at fault, this must be put right before replacing any of the soil. Add plenty of lime refuse when making up the border, as this is a very important ingredient where any stone fruit is concerned. All through the operation, when the roots are exposed, keep them well moistened with the syringe and also covered with mats.

Plants Under Glass.

Amaryllis plants should now be sufficiently ripened off, so further watering will not be necessary; in fact, it would be harmful. Remove them to a sunny shelf in some cool house where there is plenty of ventilation. Later, place them under some plant-house stage, laying the pots on their sides to prevent any danger from moisture dripping on them. It is well to examine the plants for mealy-bug, as this is sometimes troublesome when it finds a hiding-place under the scales of the bulbs.

Liliums.—Both *L. auratum* and *L. lancifolium* varieties will be worth keeping for another season if the plants have not been forced in any way. The pots containing the bulbs should be stood outdoors in a sunny position until the growths have completed ripening. When this has taken place, the pots should be removed indoors and laid on their sides, eventually shaking the bulbs out and repotting for next season's display.

Housing Tender Plants.—Many subjects which may grow well in cold frames during the summer months quickly show the ill-effects through receiving a check owing to a low temperature, which is always possible at this time. Cyclamen, Cinerarias, Primulas and Pelargoniums, among others, should therefore be removed to houses and pits where artificial heat can be used either during cold or very damp weather. The latter is equally as harmful as frost, so that a gentle warmth should be kept in the pipes, sufficient to dispel an over-abundance of atmospheric moisture.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

NEW AND RARE PLANTS.

FIRST-CLASS CERTIFICATE.

Cattleya Venus Princess Mary (C. Iris × C. aurea).—A very handsome hybrid; sepals and petals bronzy yellow, lip crimson purple. The plant bore a two-flowered scape and was a great attraction. Shown by Messrs. Charlesworth and Co., Hayward's Heath.

AWARDS OF MERIT.

Dendrobium hookerianum Fowler's Variety. The pseudo-bulbs of this variety were 2½ feet high; the flowers, which are borne near the summit, are coloured rich golden, with heavily fringed lip, and marked with a big blotch of maroon at the base.

Cattleya amabilis Fowler's Variety (C. labiata × C. Warscewiczii).—The sepals and petals are rose coloured, lip crimson purple. A very handsome variety. These two were exhibited by Mr. J. Gurney Fowler, Pembury, Kent.

Polypodium Dryopteris plumosum.—The varietal name is descriptive of a very charming and beautiful form of the well-known Oak Fern, which, we believe, has not hitherto shown any tendency to sport. The above, however, will be welcomed by all lovers of the Fern tribe, as, independently of its plumose character, it is decidedly taller and more vigorous. It is both an addition and acquisition. From Mr. T. G. H. Elley, Burgess Hill, Sussex.

Ceanothus Fantaisie.—A very beautiful and distinct variety with erect pyramids of rosy lilac flowers. It is said to be very freely flowered and excellent for bedding. Height, 2½ feet or thereabouts. Sent by Elizabeth Lady Lawrence, Dorking (gardener, Mr. W. Bain).

Strawberry St. Fiacre.—An autumn-fruiting variety of good size, which, if of good flavour, will meet with a great welcome. The fruits are light scarlet in colour. From Messrs. Bunyard and Co., Maidstone.

The foregoing novelties were exhibited before the Royal Horticultural Society, at Vincent Square, Westminster, S.W., on September 14, when the awards were made.

NEW DAHLIAS.

Vanesse (Pompon).—Pure white, of quite model form and great purity.

Cresset (Collarette).—Maroon guard florets, white collar.

Curlew (Cactus).—Good form, coloured rosy mauve.

Esmee (Cactus).—Clear pale yellow self.

Constance (Cactus).—Clear rose pink, distinct and good.

Coyness (Cactus).—Pink, white centre. These were shown by Messrs. Burrell and Co., Cambridge.

Sappho (Decorative Single).—A handsome and distinct sort. Coloured buff and edged white.

Don Juan (Collarette).—Of crimson and yellow colour.

Tipperary (Single).—Crimson with white tips. These were shown by Mr. Reginald Cory, Duffryn, South Wales.

Blaze (Decorative).—A richly coloured variety, as the name suggests. From Messrs. Carter and Co., Raynes Park.



THE NEW DECORATIVE SINGLE DAHLIA SAPPHO.

Gossamer (Cactus).—The colour is orange yellow.

A. R. Perry (Cactus).—Ruby red and tipped golden.

Sharmon Crescent (Cactus).—Pale primrose and pink. These were from Messrs. J. Stredwick and Son, St. Leonards.

William Pound (Pompon).—A model flower of primrose yellow colour. Shown by Mr. S. H. Cooper, Chippenham.

The above-named Dahlias were adjudicated upon by a joint committee of the Royal Horticultural Society and the National Dahlia Society, and carry the award of merit of the former and first-class certificate of the latter. The large decorative single novelties were particularly striking.

NEW ROSES.

THERE were some very beautiful novelties placed before the New Seedling Committee of the National Rose Society on September 16.

GOLD MEDALS.

Modesty.—A delightful Hybrid Tea of great depth of blossom and perfect form. This must become a grand exhibition variety, as well as a good garden Rose. (See illustration, page 467.) It is somewhat on the lines of Countess Clanwilliam in tinting, but a more creamy shade, and a mixture of fawn and pink. It possesses huge winged outer petals that add much to the beauty of the very elongated centres.

Golden Emblem.—At first sight we thought an extra fine basket of Rayon d'Or was on view, but on closer inspection we found a fuller flower and more superb buds, with the intense Maréchal Niel yellow so much admired and so difficult to produce in Roses of quality. We have hopes that in the near future there will be evolved a truly dwarf Maréchal Niel, for, however much we admire these Pernetiana Roses, they leave something to be desired in a fuller and more elongated centre. The growth of Golden Emblem is splendid. Both of these gold medal varieties were shown by Messrs. S. McGredy and Son.

CERTIFICATES OF MERIT.

Tipperary.—A Hybrid Tea Rose of a colour that reminded us of Melody, with just a shading of the glorious golden yellow of Lady Hillingdon, and the form more like Souvenir de G. Prat. Shown by Messrs. S. McGredy and Son.

Ulster Volunteer.—A grand single Hybrid Tea, something like a glorified Sheilagh Wilson, but with more bushy habit and really perpetual. The flowers shown were immense, and the two year old plant was a marvel of vigorous bushiness, giving one some idea of its decorative value. Shown by Messrs. Hugh Dickson, Limited.

National Emblem.—A very rich velvety crimson Hybrid Tea, open flowers, reminiscent of our old friend Charles Lefebvre. It is a little weak in the shortness of the centre petals, but it is a very fine kind, and will be planted largely until a better one comes along. Raisers seem to be a long time giving us a good crimson Hybrid Tea with the Hybrid Perpetual form. An Alfred Colomb with the colour and freedom of National Emblem would be great. Mr. McGredy informed the writer that he has a seedling of the form and colour of Prince C. de Rohan, only double its size, such a seedling would be welcomed by all rosarians, and one becomes impatient to possess such a beauty. Shown by Messrs. S. McGredy and Son.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

ASTERS FAILING (H. B. Brooking).—The Asters are attacked by a "damping off" fungus, which has recently been shown to be a species of *Phytophthora*. This fungus enters the plant from the soil and does considerable damage to Asters. It would be well another season to sow seed only in soil which has been steamed, in order to kill the spores which are likely to be in it, and to plant the Asters on a fresh site.

DAFFODILS IN WOODLAND (A. W. Rydon).—We cannot hold out much hope of success for planting these in a woodland walk where the ground is rather hard, and the first essential is that it should be broken up sufficiently to give the bulbs a fair chance. The *Poeticus Narcissus* also prefers moisture and a cool rooting medium. All woodland planting should be naturally done, and not a bad way is to strew the bulbs thinly broadcast and plant them where they fall in as informally a manner as possible. Avoid continuous planting; a break is at once a change and a rest. Small slopes should appear as though the bulbs had seeded down the bank. Field-mice rarely touch Daffodils, but are fond of Crocuses and other bulbs. Snowdrops and *Chionodoxa* should not be too near tree trunks, and the same rules of planting apply to all. A thousand would not make a very big show, but it would at least constitute a beginning.

ROSE GARDEN.

ROSE CHATEAU DE CLOS VOUGEOT SPORTING (G. Smith).—We have not seen this Rose sport a pink flower, but most varieties sport at some time during their career.

ROSA RUGOSA AS HEDGE (Y. E. R. P.).—*Rosa rugosa* can be used for a hedge of an informal character. Plants can be inserted about 1½ feet apart, and they will form a good hedge in the course of two years. They may be pruned fairly hard in March, but little pruning is advisable at other times. The type is the best kind for the purpose, but the hybrids *Conrad F. Meyer* and *Blanc Double de Coubert* can also be used, particularly the last named.

TWENTY-FOUR GARDEN ROSES OF FREE GROWTH AND FREE BLOOMING HABIT (J. Gibson).—Omitting the varieties you name, we can highly recommend the following: *Hugh Dickson*, *Ophelia*, *Lady Ashtown*, *Mme. Second Weber*, *Mme. Leon Pain*, *G. Nabonnand*, *Mme. A. Chatenay*, *Mme. A. Mari*, *Prince de Bulgarie*, *Amateur Teysier*, *G. Grunerwald*, *Joseph Hill*, *Mrs. H. Brocraebank*, *Lady Hillingdon*, *Duchess of Wellington*, *Molly S. Crawford*, *Lady A. Stanley*, *Lieutenant Chaux*, *Mrs. H. Stevens*, *Mrs. E. Powell*, *Countess of Shaftesbury*, *Cissie Easlea*, *Mme. E. Herriot* and *Louise C. Breslau*.

THE GREENHOUSE.

CYCLAMEN EATEN (Mrs. H. C.).—The little creatures devouring the roots of your Cyclamen are not slugs, as you suppose, but the grubs of a beetle with totally different habits and life-history. It is a weevil, a species of *Otiorynchus*, which, when mature, feeds on the foliage of various greenhouse plants. It lays its eggs in the soil, and the larvæ often feed on a variety of plants under glass, but sometimes in the open. Your best plan will be to turn the plants out of their pots and pick the weevils out, though pouring a small quantity of carbon bisulphide into a hole made in the soil, so long as it does not touch the roots themselves, would probably kill the larvæ.

KITCHEN GARDEN.

CELERY LEAVES DISEASED (M. R. P.).—The Celery leaves are attacked by the Celery leaf-spot fungus, *Septoria petroselinii* var. *Apii*. This fungus has been very prevalent during most seasons recently, and is likely to be this, as it is so wet. It is carried from place to place by the seed, and is best kept in check by spraying with Bordeaux mixture. This spraying should be commenced in May, and it is

probably too late to do much for your plants now, but if you have any free from the trouble it would be well to spray them; indeed, it would be a wise precaution for everyone to take at the present time, if they would keep their plants free from the disease, even though they have seen nothing of the trouble so far.

FRUIT GARDEN.

APPLE SHOOTS WITHERING (P. O'Brien).—The damage to the trees is due to cold winds or some similar cause which reduces their vitality.

PEAR LEAVES DISEASED (Bo-is).—The Pear foliage is attacked by the Pear leaf-blister mite, which winters between the bud scales. It is important to deal with it in winter by spraying with the Oregon wash, a recipe for which has been given in our "Answers to Correspondents" columns frequently.

MISCELLANEOUS.

BOOK ON BULB FORCING (H. M.).—We regret that we do not know of any book dealing fully with the forcing of bulbs for the Christmas trade.

INSECT FOR IDENTIFICATION (J. H. H. Cardiff).—The creature sent is either the Australian or the American cockroach, but arrived too much battered to enable us to be sure. We have found the "V.T.H." Slug Trap excellent for catching these pests; or one may use poisoned bait of the kinds frequently advertised in our columns, or beer put at the bottom of a smooth-sided vessel with a piece of wood leaning against it to form a bridge for the insects.

NAMES OF PLANTS.—*Mrs. Fawkes*.—*Juncus supinus*.—*H. C. R.*—1, *Veronica spicata*; 2, *V. longifolia*; 3, *Eriogon macranthus* variety; 4, *In patiens Roylei*; 5, *Polygonum cuspidatum*; 6, *Thalictrum minus* variety. —*Miss C. C. Innerleithen*.—*Rose Burgmeister Christen*, *Clematis integrifolia Durandii*, *Lathyrus 1-tifolius albus* Queen of the West, and *Bupththalmum salicifolium*. —*F. C. B., County Antrim*.—*Solanum nigrum* variety: looks like the Wonderberry.

NAMES OF FRUIT.—*E. A., Copmanthorpe*.—1, Worcester Pearmain; 2, Cox's Pomona; 3, Duchess of Oldenburg; 4, Stirling Castle; 5, Ecklinville; 6, Cox's Orange Pippin; 7, Lord Suffield; 8, Alfriston; 9, Lane's Prince Albert.

SOCIETIES.

NATIONAL ROSE SOCIETY'S SHOW.

FROM every point of view the society's autumn exhibition held at the Royal Horticultural Hall, Vincent Square, on September 16 must be pronounced a great success, if, indeed, for the season of the year it does not establish a record. Everywhere the huge banks of flowers demonstrated the wealth of the Rose in autumn, given a favourable opportunity. Incidentally, it was an object-lesson of surpassing value to the lover of the flower—and who does not appreciate a good Rose at any season?—as to what to plant, the difficulty being to limit the choice. There were Roses galore from the leading English growers, from Newtownards, Belfast, far-off Aberdeen and other places, and the great hall was redolent with their perfume. The day, however, was oppressively hot, and many flowers had opened their "eyes" in wonder. Two novelties were deemed worthy of the gold medal, and these came from Ireland. Following is a report of the more important classes.

NURSERYMEN.

For thirty-six exhibition blooms, distinct varieties, nine entered, the first prize being awarded to Messrs. Alex. Dickson and Sons, Newtownards, Ireland, for a capital lot, *Mrs. George Norwood* (pink, very fragrant), *Alexander Hill Gray* (yellow), *Edward Bohane*, *Snow Queen*, *Hugh Dickson* (fine red), *Gloire de Chedane Guinoisseau* (vermillion red), *George Dickson* (red, very handsome), and *Bertha Gaulis* being among the best. Second, Messrs. J. Cocker and Son, Aberdeen, whose best blooms were *Gloire de Chedane Guinoisseau* (silver medal), *Snow Queen*, *Coronation* (flesh colour), *Avoca* (fine red), *Charles J. Grahame*, *Hugh Dickson*, *Mrs. S. Clark* and *A. H. Hartman*, all of high colour. Third, Messrs. B. R. Cant, Colchester, whose flowers were smaller though neat and good. *Mrs. Foley Hobbs*, Dr. O'Donel Browne (carmine) and *George Dickson* were superb in this lot.

Twelve exhibition Roses, Teas and Noisettes: First, Mr. G. Prince, Oxford, who had *Mme. Constance Soupert* (yellow, pink tinged), *Mme. Jean Dupuy* (yellow), *Alexander Hill Gray* (silver medal) and *Molly Sharmar Crawford* as the best. Second, Mr. J. Pigg, Royston, Herts, whose best were *Mme. Cochet*, *Maréchal Niel* and *W. R. Smith* (white). Mr. G. Longley, Rainham, Kent, third. His *Miss A. de Rothschild* (deep yellow) was very good.

For five baskets of exhibition Roses, distinct varieties, the first prize went to Messrs. Chaplin Brothers, Waltham Cross, whose set comprised *Alexander Hill Gray*, *Hugh Dickson*, *Snow Queen*, *Caroline Testout* and *George Dickson*. Second, Messrs. J. Cocker and Son, Aberdeen, who staged *Avoca*, *Mrs. J. Laing* and *Coronation* (flesh), Messrs. *Hugh Dickson*, Belfast, third.

For twelve blooms of any Rose in a basket Messrs. *Hugh Dickson*, Limited, Belfast, were first, staging *Hugh Dickson* very finely. Second, Mr. G. Prince, Longworth, who had a superb dozen of *Mrs. Foley Hobbs*. Third, Mr. G.

Longley, Rainham, Kent, with *Snow Queen*. There were ten competing.

For twelve distinct varieties of Perpetual-flowering decorative sorts, not more than seven stems of each, Messrs. Alex. Dickson and Sons, Newtownards, were first, having *Duchess of Wellington*, *Mrs. Wemyss Quinn*, *Red Letter Day*, *Mrs. A. Tate*, *Old Gold* and *Harry Kirk* as the best. Second, Messrs. *Hugh Dickson*, Limited, Belfast, whose *Duchess of Wellington*, *Oriflamme*, *Darkness*, *Nellie Parker* (cream) and *Prince Charming* were good. Third, Mr. G. Longley.

Six distinct varieties as above: First, Mr. Elisha Hicks, Twyford, Berks, whose *Mme. Antoine Mari*, *Florence Haswell Veitch* (fine red), *Old Gold*, *L. C. Breslau* and *Mrs. John Foster* (Hybrid Tea, red) were excellent. Second, Mr. G. Lilley, Yiewsley, Middlesex, whose Mr. *George Shawyer*, *Lyon* and *Mrs. A. R. Waddell* were very good. Mr. G. Prince, third.

The class for nine baskets of cut Roses, distinct, was one of the features of the show, four exhibitors staging in excellent form. Messrs. *Hugh Dickson*, Limited, Belfast, were first with a superb lot comprising *Lady Pirrie*, *Princess Charming*, *Golden Spray*, *Mme. Edouard Herriot* (very good colour), *Irish Elegance*, *Mrs. Hugh Dickson*, *Mrs. Robert Watson*, *Ulster Standard* and *Mrs. George Shawyer*. Second, Messrs. *Chaplin Brothers*, Waltham Cross, who staged *Lyon Rose*, *Mrs. H. Stevens* (fine white), *Ophelia* (very beautiful), *Louise C. Breslau* and *Duchess of Wellington* very finely. Third, Messrs. *A. Dickson and Sons*, Newtownards.

In the class for five baskets of cut Roses, distinct, there were eight competitors, Mr. Elisha J. Hicks, Twyford, taking the lead with *Joanna Bridge* (cream), *Irish Elegance*, a glorious basket of the single crimson *Princess Mary*, *Marie van Houtte* and *Comtesse du Cayla* (very charming). Second, Mr. *Walter Easlea*, Eastwood, Essex, whose *Lady Hillingdon*, *Lady Pirrie*, *Mme. Edouard Herriot*, *Mrs. H. Stevens* and *Ophelia* (salmon flesh) were all good. Third, Mr. G. Prince.

For twenty-four distinct varieties, decorative sorts, only two entered, Mr. J. Mattock, Oxford, being first with a good lot. *Irish Elegance*, *Marquise de Sinety*, *Louise C. Breslau*, *Beauté de Lyon*, *M. Paul Lede*, *Mme. Edouard Herriot*, *Irish Glory*, *Marie van Houtte*, *Maharajah*, *Irish Flame* and *Sunburst* were the best. Second, Messrs. *F. Cant and Co.*, Braiswick Rose Gardens, Colchester.

Twelve distinct varieties as above: First, Mr. Frank Spooner, Horsell, Woking, who staged *Sunburst*, *Ecarlate*, *Rayon d'Or*, *Lady Pirrie* (very good colour), *Mrs. H. Stevens* (fine white), *Chateau de Clos Vougeot* and *Florence Haswell Veitch* very well. Second, Mr. Elisha J. Hicks, Twyford, whose *Princess Mary* (single, crimson), *Lady Hillingdon* and *Duchess of Wellington* were excellent. Mr. G. Prince was third. Five competed.

Twelve distinct varieties of Dwarf Polyantha Roses: First, Messrs. *F. Cant and Co.*, Colchester, who had *Eugénie Lamesch* (orange yellow), *Leonie Lamesch* (orange and red), *Frau Cecile Walter* (white, cream centre) and *Etoile de Mai* (cream). Second, Mr. Elisha J. Hicks.

GROUPS OF ROSES.—NURSERYMEN.

For a representative group of Roses on a floor space not exceeding 150 square feet, only one exhibitor, Messrs. *Hobbies*, Limited, Dereham, staged, and were awarded first prize for an admirable lot. The arrangement consisted of a groundwork of Dwarf Polyantha sorts, with bold vases and stands and groups margined with *Isoplepis gracilis* and Ferns. *Rayon d'Or*, *Pharisæe*, *Mrs. A. Tate*, *Snow Queen*, *Lady Hillingdon*, *Sunburst*, *Lady Pirrie*, *Florence Haswell Veitch*, *Mme. Edouard Herriot*, *Melody*, with handsome vases of *Effective* and *George Dickson*, were among the finer items.

For a representative group of cut Roses, space 18 feet by 6 feet, for which the first prize was the society's gold medal and 40s. cash, Messrs. *W. and J. Brown*, Peterborough, were first with a superb bank of flowers, chiefly in vases and stands. *Mme. Jules Gravereaux*, *Lady Pirrie*, *Mme. Edouard Herriot*, *Mrs. H. Stevens* (white), *Duchess of Wellington* (rich yellow) and *Lady Hillingdon* were among the most telling. Second, Mr. *John Pigg*, Royston, Herts, who made a great central display of *Mme. Edouard Herriot*, employing several hundred flowers, across which a windmill-like arrangement of *Molly Sharmar Crawford* was placed. Third, the Rev. *J. H. Pemberton*, whose group comprised Polyantha sorts, largely of his own raising.

For a representative group of cut Roses, on staging space 20 feet by 3 feet, three competitors entered, the leading prize being secured by Messrs. *G. Jackman and Son*, Woking, for an admirable lot. A few good things were *Willowmere* (salmon pink), *Mme. Jean Dupuy*, *Mme. Edouard Herriot*, *Peace* (deep cream), *Kaiserin Augusta Victoria* and *Lady Hillingdon*. Second, Messrs. *B. R. Cant*, Colchester, whose stand of *George Dickson* was very fine. *Red Letter Day* and *Alexandra Zarifi* (single, of peach and cream colour), were also good. Third, Messrs. *Harkness and Co.*, Hitchin.

MISCELLANEOUS.—NURSERYMEN.

Thirty-six distinct varieties, not fewer than three stems of each: First, Messrs. *F. Cant and Co.*, Colchester, whose superb lot included *Rayon d'Or*, *Richmond*, *Joseph Hill*, *Lady Hillingdon*, *Arthur R. Goodwin*, *Alexander Hill Gray* and *Ecarlate*, all very fine. Second, Mr. *J. Mattock*, whose best were *Marie van Houtte*, *La Tosca*, *Marquise de Sinety*, *W. R. Smith* (cream, pink tinged), and *Harry Kirk* (good yellow). Third, Messrs. *B. R. Cant and Sons*.

Twelve distinct varieties as above: First, Mr. Elisha Hicks, who had a grand lot of flowers, particularly of *Princess Mary*, *Lady Hillingdon*, *Mrs. Wakefield Christie-Miller* (fine pink), *La Tosca* (pink), and *Mrs. Charles Reed* (flesh and cream). Second, Mr. G. Prince, Oxford. Third, Mr. *C. Turner*, Slough, *Mme. Jean Dupuy* being very good.

THE GARDEN.

No. 2289.—VOL. LXXIX.

OCTOBER 2, 1915.

NOTES OF THE WEEK.

OUR NEW EDITOR.

APPOINTMENT OF MR. HERBERT COWLEY.

THE Proprietors of THE GARDEN have pleasure in announcing that the vacancy in the editorial chair has been filled by the appointment of Mr. Herbert Cowley. As Assistant Editor he has been for five years an able coadjutor to the late Mr. Harvey, and may be relied upon to maintain the high traditions of horticultural journalism which have always marked the conduct of THE GARDEN.

Mr. Cowley has been serving with the "London Rangers" 12th County of London Regiment since the outbreak of war, and lately returned from the Front with a wound, which has, happily, healed. It has left him, however, with a stiff leg, which will prevent him again going on active service, and the military authorities have now "demobilised" him. His varied and successful career will be known to many, and it has been of a nature to fit him peculiarly for his responsible post, because it has covered many activities both in the theoretical and practical sides of horticulture.

Associated for many years with the work at the Royal Gardens at Windsor and the National Establishment at Kew, Mr. Cowley studied at Swanley Horticultural College in the days before it was wholly devoted to lady students, and has travelled in Eastern Europe making an extensive tour throughout Bulgaria in 1911 in search of new and rare plants. The Proprietors therefore feel that Mr. Cowley is assured of a very hearty welcome from the readers and correspondents of THE GARDEN, and hope that they will make full use of his services by applying to THE GARDEN freely for advice in any problems that may arise, no matter what the branch of gardening may be.

Wasps and Late Plums.—These insects are very troublesome with late Plums which may be left hanging outdoors. To try to prevent them being so destructive, bottles containing beer or syrup and water should be hung on the trees. This generally reduces their numbers considerably.

An Autumn-Flowering Sea Pink.—One of the most delightful plants for the rock garden in

requested to notify any change of address, since the 1915 edition was published to the Editor of the "Horticultural Directory," 10, Essex Street, Strand, London, W.C.

The Chaste Tree (*Vitex Agnus-castus*).—Having the popular name of the Chaste Tree, this shrub is a native of the Mediterranean region. In the South and West it is hardy in the open, but in many localities the protection of a south or west wall is desirable. At the present time the plants are clothed with slender racemes of pale mauve or violet blossoms, which are pleasingly fragrant. A light loamy soil is desirable, and this should be well drained. Increase is by cuttings and layers. *Vitex Agnus-castus* belongs to the Natural Order Verbenaceæ, and is allied to the Scented Verbena or Lemon Plant (*Aloysia citriodora*).

Vegetable Trials at Reading.—By way of demonstrating the great value of growing vegetables from seed sown late in the year, Messrs. Sutton and Sons are conducting experiments of a very instructive nature in their trial grounds at Reading. There are splendid rows of Cabbage Lettuce, Endive, Radishes, Onions, Beetroot, Turnips, Peas and Carrots, all of which have been grown from seed sown on July 31. From the time of sowing the plants had received no special treatment beyond thinning; they had not been transplanted or watered. True, the season has been favourable, but the weight and quality of the produce within eight weeks of the time of sowing are quite remarkable.

War Horticultural Relief Fund.—This fund to assist horticulturists in the countries of our Allies to re-establish their businesses when Peace is restored is making quiet progress. It is rather an interesting fact that to-day (September 23) the total amount received in donations and promises of donations is £5,555 5s. 5d.

—W. WILKS, *Secretary, Royal Horticultural Society.*

Apples and Pears for Wounded Soldiers.—Last year we inserted an appeal for Apples for the Victoria Hospital, which met with a most generous response from our readers. We learn from a contributor that Apples and Pears, for eating or cooking, would be very much appreciated by the wounded soldiers. Any gifts addressed to the Matron, Victoria Hospital, Tite Street, Chelsea, will be gratefully acknowledged.



A PRETTY AUTUMN-FLOWERING SEA PINK, *ARMERIA FASCICULATA*, NATIVE OF SARDINIA.

autumn is *Armeria fasciculata*. From a dense tuft of greenery peculiar to Thrift or Sea Pink arise long, slender stems, bearing heads of lovely soft pink flowers. Our illustration is reproduced from a photograph taken in the rock garden at Kew late in September. It is a native of Sardinia, and, although little known, is certainly one of the prettiest of the Sea Pinks.

"Horticultural Directory" for 1916.—The "Horticultural Directory" for 1916 is now in course of preparation, and head-gardeners are respectfully

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Covered Chains for Roses.—When visiting a garden in Gloucestershire a few days ago, I noticed in the Rose garden a large circle of Roses with Fir posts, and chains from one post to the other. These chains were hidden by short sections of hollow wood, Bamboo or Birch, each section being about 6 inches long. Do you consider this to be any improvement on the ordinary chain for Rose growing?—WEST COUNTRY. [Iron chains may be harmful to the growth of Roses in very hot or in very cold weather, although we are not aware that such is the case. We welcome correspondence on a subject of so much importance to all who grow Roses.—ED.]

Cotoneaster Simonsii.—As a hedge plant this Cotoneaster is not used as extensively as it deserves to be. When trained it makes a fine wall plant, and the one referred to by Mr. Charles Comfort in THE GARDEN, issue September 18, page 456, which has attained a height of 20 feet, proves its worth for the furnishing of high, exposed walls. In the Southern Counties there are some beautiful hedges of it. For use as ornamental division hedges in gardens this Cotoneaster is most serviceable. The plants make fibrous roots freely, and so it is necessary to deeply trench the soil in which they are to be grown. I have seen fine hedges of the plants growing in almost pure sand.—SOLENT.

Economy of Rockwork and Garden Literature.—"C. H. S., Alderley Edge," in replying to my "Economy of Rockwork" in a recent issue, contrasts a garden and a library, and asserts the garden appeals only through the eye. All horticultural literature disproves this. Gardening is as much a cult of the mind as any other cult not purely abstract. It pleases the eye, no doubt, but it is equally true that it pleases the mind when the eye is not in action, and literature is an intermediary which assists both. The original success of THE GARDEN was due to the realisation of the true place of literature in the garden. THE GARDEN met the mind and made all accessories secondary. It gave plants as the essential, not news about them. THE GARDEN opposed the exotic system of a maximum display to the eye and a minimum to the mind, which the bedding out of the early seventies involved. Since then much has changed, but the present popularity of rockwork is a legitimate development of THE GARDEN's original programme.—HURSTCOT.

Birds and Ripe Fruit.—When I wrote my note on this subject the wasp season had not commenced. I mainly referred to birds and soft fruits. But I quite agree with "T. A. W.," page 457, issue September 18, that the wasps are terrors. The birds, I find, generally peck such fruits as Apples and Pears on the side or near the fruit-stalk first, and then the wasps get busy there also. But in the case of Plums, Grapes, Peaches and Nectarines they do not wait for birds to make an inroad first, but make it themselves. Wasps are, in some years, much more numerous than in others, and this is one that appears to be generally favourable to them throughout the country. The queen wasps, I am told, are bred during the last six weeks of their season of nesting, so that all nests now should be destroyed. I use a piece of rag rolled to the size of one's finger, soak it in

turpentine, place it in the entrance hole of the nest, and put on a spadeful of earth after sunset. All wasps at home remain there.—G. G.

Antirrhinums as Bedding Plants.—It was with pleasure that we read "G. G.'s" note (issue September 18, page 457) on Antirrhinums being so largely used in the Bournemouth Public Gardens and district. He is quite right in his surmise about "their cultivation being increased considerably next year," for we unhesitatingly say they are to be the bedding plants of the near future now they can be had in so many beautiful art shades, and may be relied upon to come true from seed when obtained from a reliable source. There is one point, however, with which we must disagree; that is, the proposal of saving the seeds of the very fine strains in the private garden. It was this haphazard method of seed saving that kept these beautiful flowers so much in the background; one never knew what to expect, for they will not produce any true colour form unless specially bred. This is our experience of years of labour. We strongly advise amateurs not to save the seed, or they will be terribly disappointed with the results. By all means take cuttings; these will bloom much earlier in the year, but will not make such fine plants as seedlings or give such a succession of bloom.—W. H. SIMPSON AND SONS, Birmingham.

Meconopsis heterophylla.—This is said to be the only species of that genus from the New World, being found in America. It is one of the most lovely of the genus—and, as so often happens with the beauty of the family, is a "pernicketty" tempered, easily offended creature. So long as this Poppy gets its own way, it smiles and is a joy to see; but if you interfere with it, sulks and pouts will certainly be produced. All goes well with it if it is allowed to sow itself and it does not get crowded out by stronger-growing plants. Then there should be a mass of the glorious deep orange flowers throughout May and June, of a colour that is as rare as it is beautiful. Each flower has a deep maroon eye that greatly adds to its beauty. This season the heavy rains of July have caused seedlings to spring up earlier than usual, and the warm, sunny days of the last month have induced them to run up into flower. We are enjoying a second crop of the brilliant flowers, and are rather afraid that we shall have few, if any, non-flowering rosettes that will go through the winter to bloom next year. Spring-sown seeds never do so well as autumn self-sown ones, and if raised in pots it is most difficult to plant out the young plants unless the whole potful can be put in without disturbing any of the roots.—E. A. BOWLES, Waltham Cross.

The Dwarf Pomegranate.—In the interesting article on the Pomegranate which appeared in THE GARDEN, September 18, page 462, no mention is made of the dwarf form. [It has since been referred to by Mr. E. A. Bowles on page 468, issue September 25.—ED.] It is one of the most distinct and floriferous of all the varieties, and, owing to the fact that it blooms freely in a small state, a place may be found for it in gardens where the ordinary form grows too tall. The Dwarf Pomegranate, the botanical name of which is Punica Granatum nanum, forms a dense twiggy bush from 3 feet to 5 feet in height, clothed with small leaves, which in the autumn, just before they drop, change to a bright golden yellow tint, but they do not long remain in that stage. The flowers in the bud state are of a bright red colour and wax-like substance, but, when expanded, the

exposed interior is of a rich glowing orange tint. Towards the end of the summer and early autumn this Pomegranate is very attractive, as the blossoms are borne with great freedom. According to Loudon, the Dwarf Pomegranate was introduced in 1723, but it is not very generally met with. Plenty of sunshine is necessary to its well-doing. From its lowly stature it may be trained against the wall of a hothouse facing south. In such position a very fine specimen stood for years in the Ashburnham Park Nursery of the late Mr. William Bull at Chelsea, but the spot is now covered with dwelling-houses.—H. P.

The "Daily Mail" Show of Vegetables. I came away from this wonderful show with very mixed impressions. For the life of me I could not understand why none of the varieties were allowed to be named. This fact made the exhibits of small educational value to those who came to see the show. The fact that the exhibit of Mr. Tom Jones, one of the £100 prize winners, had to be staged in an ugly box made it look far less impressive than it would have done had he had as much exhibition latitude as was accorded the professional gardeners in their class, though his material was certainly nothing inferior to theirs in quality. Among a lot of good things shown were the Carrots from Mr. T. Rule Owen of The Glen, Haverfordwest. In a fairly long experience, I must say I never saw anything quite so fine, so even, so clean, and so beautifully grown. A well-known vegetable grower who was examining them with me hazarded the opinion that they were perhaps the best lot of Carrots ever put up at any show, and I think he was probably right. Here, again, I wonder what the variety was. I suspect, but I do not know.—F. HERBERT CHAPMAN.

Solanum jasminoides.—Although usually referred to as a greenhouse climber, I propose in the present note to call readers' attention to it as an outside plant. It cannot be claimed as hardy in every part of the United Kingdom, but there are many counties and a host of positions where it would thrive. I recently saw a beautiful sight in Gloucestershire, where this Solanum and Vitis Coignetiae were growing intermixed around an old tree. The pretty clusters of almost white flowers of S. jasminoides among the bold foliage of the Vitis were most effective. To secure the finest results a southern aspect should be chosen, and for preference a light, warm soil. The position has much to do with success or otherwise, because the more sunshine the plant receives, the riper the wood becomes, and it is not so liable to be injured by frost. Little pruning is required beyond cutting out a small portion of the old wood if the growth is too thick. S. jasminoides begins to bloom in early summer, and at the present time it is still a mass of flower. In fact, it will continue more or less until cut down by frost. The pity is that it is not quite hardy, but if allowed to ramble at will over a warm wall, or grown in association with other climbers it is a charming plant.—B.

Changing the Botanical Names of Plants.—I had occasion recently to refer to the list issued by the Royal Horticultural Society of the "Plants &c., Certified by the Society from 1859 to 1910 inclusive." The names of the Ferns contained therein furnish a good illustration of the chopping and changing about that is so frequently indulged in by some botanical authorities, and the superseding of old and established names by new ones. The average horticulturist is apt to look upon it as designed either to puzzle those outside of the

scientific world or to enable the author to pose as the authority for the various changes. That the common Brake or Bracken is no longer a *Pteris*, but a *Pteridium*, and in the case of the Hart's-tongue Fern, *Scolopendrium* is superseded by *Phyllitis*, will be news to many. This, however, is not all, as the Male Fern is now a member of the genus *Doryopteris*, while *Todea* is changed to *Leptopteris*. Those pretty hardy Ferns *Onoclea* and *Struthiopteris* have now a fresh genus made for them in the awkward-sounding word *Matteuccia*. In the preface it is stated that in the Ferns Carl Christensen's "Index Filicum" has been followed. Surely the Royal Horticultural Society should have been patriotic enough to retain the names given by those good English botanists who have made a special study of Ferns.—H. P.

Crinums.—It is interesting to notice that these plants are gradually gaining favour. We have been successful in flowering *Crinums* the first season. Large, well-ripened, dormant bulbs were purchased early in April, 1914. These were potted into 8½-inch pots, which were just large enough to allow a small quantity of good loam to be rammed around the bulbs, but the upper half remained fully exposed. The pots were then buried in a border under a south wall, and soil was heaped up over the exposed portion of the bulbs. Growth of leaves quickly commenced. Water was applied copiously during dry weather, and by the middle of August the first flowers appeared. Some of the roots produced two spikes of flowers, while not one failed to produce abundance of healthy foliage and at least one fine head of flowers. During October the plants were lifted for removal to their permanent quarters. It was found that the pots were full of roots, but very few had reached the soil surrounding the upper half of the bulbs. They were removed from the pots and planted in a narrow border having a south aspect. The soil is a light rich loam. There has been an abundance of flowers during August and early September. Deep planting (as the term is generally understood) has not been practised; the base of the lower leaves is resting on the surface of the soil. The above remarks apply to the variety *Powellii album*.—C. RUSE, *Folly Farm Gardens, Sulhamstead, Berks.*

Crocus Species.—How Mr. A. Ireland must have chuckled when he saw the appeal of the Rev. Joseph Jacob to grow such *Crocus* species as *Sieberi*, *biflorus*, &c. (issue September 18, page 464.)! Mr. Jacob is so innocent of such matters that he does not realise that Mr. Ireland and the firm he represents, to say nothing of Mr. Bard, are in the habit of exhibiting not merely for the love of the thing, but for business. That being so, it stands to reason that firms are not going to make a big splash with things that cannot pay their way. Even granting that *Crocus* species are

beautiful, they cannot match the large-flowered Dutch type.—T. A. W.

Burning Leaves.—I was very glad to see the article by "G. G." on page 445, issue September 11, on "Tree Leaves." It is a most wasteful thing to burn any leaves which will make tolerable leaf-mould, or which can be used for the making of hot-beds and other garden purposes, but, of course, leaves of such trees as *Poplars*, *Sycamores* and *Planes*, which are quite useless for most purposes, should be burnt to get rid of them, and the ash, which is valuable, stored in sacks in a shed before it gets wet. Shrub leaves also



THE "LILY OF THE FIELD."

(*STERNBERGIA LUTEA*).

must be burnt, as they are useless, and, with the leaves, hard rubbish from the borders and weeds which are seeding should also be got rid of. Here we find that leaves may be mixed with soft garden rubbish, and, after this has rotted a few months, good vegetable manure is formed. But we shall not waste many leaves in this way this winter (if it can be called waste), for we shall want to use up all possible leaves for the making of leaf-mould. Leaf-mould and semi-rotted leaves will be more than ever in demand as manure, both during this and next year, for stable manure will be hard to get with so many horses being taken out of England to serve at the Front.—E. T. E., *Sheffield.*

STERNBERGIA LUTEA.

FOLLOWING closely upon the heels of the Meadow Saffron and Autumn Crocus are the *Sternbergias*—of which *S. lutea* is the supposed "Lily of the Field" of Scripture—a small though valuable group of autumn-flowering bulbous plants belonging to *Amaryllideæ*. The undoubted beauty of the plants—and those best known in particular, chief interest being invariably centred in *S. lutea*—commend *Sternbergias* to all who see them. Some are spring and others autumn flowering, though the former by no means compare with the latter in point of popularity. The spring-flowering form of *S. lutea*, known as *fischeriana*, is a plant very much like some of the ordinary forms of *S. lutea*, but it is a spring-flowering kind. At the same time, it does not command the attention that is sure to be given to autumn-flowering forms. We well remember the interest that a small exhibit of *S. lutea* created some years ago when shown by Mr. Hudson, gardener to Mr. Leopold de Rothschild, at one of the meetings of the Royal Horticultural Society. The way these were set up was excellent, because it was an object-lesson of how small groups of these plants appear in Nature.

All who would care to grow *Sternbergias* will be pleased to know that the plants offer but very few cultural difficulties. The chief one, and hard to overcome, is a certain shyness of flowering, to which the plants on certain soils are prone. Not unnaturally, we have largely, if not, indeed, entirely, to depend upon imported bulbs of these plants year by year, and as these are invariably small in size, cultivators should be made aware of the fact that probably three years are required before these may be called fully established. In all probability the first year no foliage will appear, a most weakening influence on the bulb, to say the least. Still, with the knowledge that the subject is well planted, it would be unwise to disturb them at this time and for this

cause. In the Thames Valley, on a light and well-drained soil, a soil extremely dry, too, in summer, the *Sternbergia* gives little trouble, the imported roots becoming well established in a couple of seasons, and from this time dates the increase of the bulbs below ground. Where the soil is heavy and inclined to clay, it is best considerably lightened by grit, leaf-soil and the like, and this to a good depth. In all cases the bulbs of these should be planted deeply, 6 inches below the surface not being a bit too deep, and when planted leave them alone, for few plants are more opposed to frequent disturbance than these winter Daffodils, as they are called. In view of this it is

a good plan to place them in positions not exposed to yearly interference, and among worthy places warm, sunny banks or slopes may be named, for here it would be not only possible, but quite easy to establish them. It may be well to dig out and replace the original with fresh soil in such places, but much depends on the material itself and a good medium, as before described. A good time for planting dry bulbs is early in August. There is a form of *S. lutea* called *angustifolia* which is less shy in its flowering, and, indeed, when established may be regarded fairly reliable in this respect.

S. lutea, of which a small group appears in the illustration on the previous page, is among the oldest of cultivated garden flowers. There are several varieties, the one named above and *S. l. major* being the best of the autumn-flowering section. The last named has flowers of the richest yellow and does not remain in the cup form, but, casting first one segment and then another, opens eventually into a large bloom of rather flat shape, save for the slightly upturned margins. *S. l. fischeriana* is an early-flowering kind, often appearing in February or soon after. All the autumn-flowering forms of *S. lutea* produce the foliage at the time of flowering. Another very important species is *S. macrantha*; this also flowers in autumn, and sends up the leaves in early spring. It is a large and bold-flowering kind, less refined, perhaps, than *lutea* forms generally, though quite double the size. It is possible it is less hardy than some, as a small planting made a year or two back never came up again, though planted at much the usual depth for such things. The bulb of this is also very large. Another species not usually seen in cultivation is *S. colchiciflora*. This is also an autumn-flowering kind, though of diminutive growth when compared with the forms of *lutea*. The flowers are rich yellow in colour, and the perianth segments little more than an inch long.

A NARCISSUS FOR THE ROCK GARDEN.

DURING the early days of spring *Narcissus minimus* is one of the daintiest flowers in the rock garden, and one that never fails to create interest among visitors. This is a perfect little trumpet Daffodil in every respect, yet it seldom grows more than 3 inches high and the flowers do not exceed three-quarters of an inch in diameter. The colour is golden yellow, and the plant is by no means difficult to grow. The bulbs, which are about the same size as those of the ordinary Snow-drop, should be planted 2 inches to 3 inches deep giving them a well-drained nook in the rock garden. This little Daffodil needs well-drained loam for a rooting medium, and the bulbs should be planted now in colonies of a dozen or more, according to the space available. Isolated plants lose half their charm. It was, I believe, first found growing wild in Spain by the late Peter Barr about thirty years ago. As most of the bulbs sold now are collected from their native places, they cannot all be relied upon to flower the first year, though a good many of them do. Once established, they come up and flower year after year in many gardens, though in a few instances one hears of them dying out.

H.

THE BEST BERRIED TREES AND SHRUBS.

AT this season of the year, when our hedgerows are resplendent with the brilliant fruits of the Wayfaring and Spindle Trees or the more sombre hues of the common Hawthorn, it seems opportune to draw attention to the goodly host of shrubs that are worth including in our gardens for the sake of their fruits alone. It is a curious trait of Nature that many of our best berried trees and shrubs, notably the Holly



THE NEW BERBERIS BREVIPANICULATA WITH CLUSTERS OF ORANGE AND CRIMSON FRUITS.

and Sea Buckthorn, have flowers of an inconspicuous character; hence, were it not for their fruits or foliage, one would find but little use for them, even in the largest shrubberies. The autumnal and winter beauty of such shrubs has not in the past been considered so fully as it might have been, and too often little more than a passing thought is given them when planting is done. Yet they have their value from now onwards, when the autumn flush of flowers is on the wane; and some of the best are mentioned here as a reminder to those who anticipate planting shrubs this autumn. Generally speaking, they will thrive in any good garden soil, but the best

effects are usually obtained by grouping the smaller-growing kinds in masses instead of planting them as isolated specimens.

The most interesting family of all is the Symphoricarpaceae, or Snowberry, of which, until quite recently, *racemosus* was the best example; but a year or two ago one named *occidentalis*, with much larger fruits, was shown. Both have glistening white berries, that look very charming just now, particularly if the shrubs are grouped in front of some dark-hued evergreens such as Yews. *Crataegus Pyracantha Lelandii*, though usually grown on a wall, is much more effective as a free shrub, in which form its large clusters of orange scarlet fruits give a pleasing pendulous habit to the branches. To crucify this plant on a red brick wall, as is so often done, is the acme of bad taste, and ought not to be tolerated in any garden.

The Sea Buckthorn, already referred to, is one of the most beautiful of all our fruiting shrubs, though perhaps its semi-transparent, pale orange berries are more appreciated in the winter. In planting this we must remember that male and female flowers are produced on separate bushes, and to get a display of fruits one pollen plant to about three of the other sex must be included. This also applies to the *Skimmias* and *Aucubas*, both of which will give us scarlet fruits in abundance if this little, though important, law of Nature is attended to. The *Cotoneaster* family is particularly rich in ornamental fruiting shrubs, and, common though it is, the one named *Simonsii* is the best that I know for retaining its berries through the winter. *C. frigida* makes a tall shrub some 20 feet high, but is very beautiful just now with its good-sized bunches of red fruits. A new species named *C. applanata* gives promise of being particularly useful on account of the freedom with which it produces its fruits.

Among the *Berberises*, or Barberries, there are several well worth growing for the fruits that they bear. The common species found in our hedgerows, and named *vulgaris*, is very handsome with its pendulous clusters of coral red, sausage-shaped berries; but the newer *Wilsonæ* is even more charming, as it has a graceful, semi-pendulous habit and long spines that render it attractive at any season of the year. Another new species that is very beautiful at Kew just now is *B. brevipaniculata*. It has large clusters of almost globular, small fruits, the colour of which is a curious combination of orange, scarlet and crimson. It forms a neat shrub, and will doubtless be extensively planted when better known.

In the Prickly Heath (*Pernettya mucronata*) we have a dwarf evergreen shrub that likes peat in the soil, and which, if well grown, will give us a wealth of globular berries. Some of these are a delicate shade of rose pink, others nearly crimson, and others, again, ivory white, these variations at times being found on the same plant. If grouped among such shrubs as *Rhododendrons* the Prickly Heath makes a charming feature at this season. Among *Roses*, there are several well worth growing for their fruit alone, one of the best being *Rosa Moyeii*, a rather new single-flowered species, the fruits of which are Pear-shaped and of a brilliant red hue. The *rugosa* *Roses* and the common Sweet Briar are others that come to mind as useful in lending

gleams of colour to the landscape from now onwards well into the winter. In addition to the shrubs now named there are many which have ornamental fruits; but enough has been said to draw attention to a class of plants that is, in the rush for those with brilliant flowers, too often overlooked.

THE MICHAELMAS DAISIES

THE thanks of all lovers of autumn flowers are due to those enthusiasts who must have given much of their time and patience to bring about such a great improvement in this indispensable race of hardy plants.

It seems but a few years ago since the plants were considered of such little importance that it was seldom they were given much prominence, their chief use in many instances being to block out unsightly corners, and to dump them down in the shrubbery wherever they could be placed without much trouble. This course was to a certain extent understandable on account of the inferior quality of the then-known varieties. But poor as they were in comparison with some popular varieties to-day, they had not a chance to show what effect they were capable of producing, as there were few who thought it worth while to devote a little time with the spade, and least of all anything in the shape of manure, to their surroundings.

This haphazard method has, however, altered with the improvement of the race, and, even in places where they were slow to import the new additions, the effect of well dug and manured ground became evident on the old stock when, in responding to the demand for the more gorgeous of hardy plants, a few were made use of to fill in the background of a newly made border, which was, of course, duly prepared in a proper manner. Thus, in not a few cases the merits of the Starworts came to be realised, and the demand was there for the newer forms as they were introduced. At Kew Aster Robert Parker and the Italian Starwort (*A. amellus bessarabicus*) are naturalised in bold groups in the woodland with telling effect.

In addition to the position usually allotted to them in the herbaceous border, the opportunity of massing them alone and in conjunction with the border Chrysanthemum has been seized, the result being an effect equal to any of the season, as both flower at the same time, and the bright colours of the Chrysanthemum, especially the Massé family, are seen to great advantage, on rising ground particularly, among the blue and violet shades of the Daisies. For this or any other scheme of planting to be successful, it must be understood that all the Starworts appreciate a good deep soil that has been well enriched with manure, as they are very vigorous in their root action. They must also have ample space, so that each shoot may appear to the best advantage. It is a poor method to have a plant tied in the middle like a wheatsheaf; the beauty in such a

specimen is completely lost, besides being a most wasteful practice, as, instead of each main stem having vigorous side shoots down to the ground, there is nothing worth cutting but inferior bunches at the very top. From a well-grown plant, one to three shoots neatly staked out will give a far better return in a more graceful manner than three times their number badly grown and overcrowded. This method entails a severe thinning out of the shoots in early spring, which may perhaps appear rather wasteful to those who have not as yet experienced the effect in September; but once it is tried, the superiority of the sprays that are available for cutting will alone render the old bunching-up process a thing of the past.

When alluding to these plants in their different species and varieties, one often hears a distinct murmur to the effect that all of them take after one another, or, in other words, are too much alike—

trusses and reaches a height of about four feet. In *A. ericoides* we have a section of special value for cutting, on account of its long and graceful sprays being available in colours that are always in demand. A beautiful pink is *A. e. Charmer*, growing some three feet high. *A. e. Enchantress* is a white that passes to pink with age. A beautiful shade of lavender is *A. e. superbus*, while *A. e. The Pearl*, bluish white, is indispensable.

Of quite a distinct appearance from the foregoing are the varieties of *Novæ-Angliæ*. They are of a more vigorous habit and the flowers are larger; they can also be relied upon to bloom right up to November, and what is perhaps not their least interesting feature is their considerable diversity of colour, crimson shades especially being most prominent in the varieties *Brilliant*, *Mrs. S. T. Wright* and *W. Bowman*. Blue and purple shades are seen to great advantage in *Damosel*,



ASTER ROBERT PARKER NATURALISED IN THE WOODLAND.

that if one possesses a few he can almost safely say he has them all. That there is ground for this charge cannot be denied, one reason being the ease with which they can be raised from seed. But beyond the *Novi-Belgii* species the charge has not a sure foundation, as among other species and varieties there exist a number that show great distinction, a few of which are here given. These are bound to be admired wherever perennial Asters are appreciated.

In the *Amellus* section three varieties are of outstanding merit. *A. A. Admiration* is a dwarf grower, and carries immense masses of lovely mauve pink flowers. *A. A. Beauté Parfait* is perhaps the finest of the section, with fine clusters of rich dark violet flowers with a yellow centre. *A. A. Perry's Favourite*, with rose-coloured flowers, is a charming variety and, like the last named, is of medium height. *A. cordifolius* Edwin Beckett has fine mauve flowers borne in pyramidal

Duchess of Albany and Climax. All these average about four feet in height. A beautiful white variety is *Amity*, growing some two feet high.

In the *Novi-Belgii* varieties are some interesting forms, chief among them being the double-flowered *Beauty of Colwall*. The flowers are a pleasing shade of lavender and are produced with the greatest freedom on robust-growing stems that average about four feet in height. Brightness, rosy lilac, produced in elegant sprays, is most useful. *Eileen* is a fine deep blue, and for a paler form *Margaret* is worthy of note. White Queen stands well out among the whites, and for a beautiful shade of pink *Perry's Favourite* should not be overlooked. There are other Michaelmas Daisies, but with a selection of the foregoing the garden in autumn will not be wanting in colour, nor the vases indoors be empty, so long as severe weather remains at a distance.

Rotherham.

F. J. TOWNEND.

BLUE - FLOWERED BULBS FOR AUTUMN PLANTING.

THOSE whose business or hobby it is to study the colour blending of flowers for pictorial effect realise only too well the paucity of really good blue flowers that exists. Spring is, perhaps, the most bountiful of the seasons in this colour, as in addition to the many charming little alpine of herbaceous or sub-shrubby habit, there is quite a host of bulbs that give us their quota of blue at that season. As with most other things relating to gardening, and floriculture in particular, the term blue is a very elastic one, and embraces many colour shades that the artist would find other names for. Yet it is in this very elasticity that the average flower-lover finds much enjoyment—pleasure that would be lost were every flower tabulated under a strict colour chart. Using the term blue, then, in its broadest gardening sense, there is no lack of bulbs that may be planted during the next few weeks for the purpose of providing us with drifts and clouds of blue next spring.

The most charming of these is, to my mind, the beautiful little *Chionodoxa sardensis*, a rich gentian blue flower, only a few inches high, that follows closely on the last of the Snowdrops. It is comparatively rare yet, though no more expensive than the better-known *C. Luciliae*, or *Glory of the Snow*. Although the latter has blossoms of a paler colour, it forms a very pretty companion to the richer-hued *sardensis*. Other and larger-flowered members of the family are *grandiflora* and *Imolusii*; but the last named is still rather too expensive for planting freely. Grass and woodland, shrubbery and rock garden, may be transformed into a fairyland of blue at a comparatively small cost by the free planting of the first two species named. Of very similar habit, and bearing flowers of true blue a little later in the season, is the dainty little Siberian Squill (*Scilla sibirica*). I have often seen this recommended for planting with Snowdrops, so that a contrast of white and blue might be obtained; but my experience is that the whiteness of the Snowdrops has departed before the blue of the Squill appears, especially the first season after the bulbs were planted. The Two-leaved Squill (*Scilla bifolia*) has blossoms of rather paler colour, and flowers with the *Chionodoxas*. Both *sibirica* and *bifolia* are excellent for the positions recommended for the *Chionodoxas*. While dwelling upon the Scillas, it may be permissible to mention those that flower later in the spring, usually about the month of May, when the Tulips are painting the garden with their gorgeous colours. *S. nutans* is our wild Bluebell, and needs no further description; *hispanica* or *campanulata* and its variety *compacta*, and *patula major* are three others that are very similar in habit and general appearance.

The Grape Hyacinths, or *Muscari*, are a genus of bulbous-rooted plants to which we are indebted

for some of our best blue flowers of spring. *Azureum*, sometimes known as *Hyacinthus azureum*, is the earliest to flower, and forms a sheet of Cambridge blue colour in border or woodland as early as February. March brings us the Italian Grape Hyacinth (*Muscari botryoides caeruleum*), with its dark blue flowers that always remind one of old-time gardens, and before it has

several years ago will live long in my memory. These Grape Hyacinths do not seem to thrive so well in grass as in the border or shrubbery, though they can be induced to flower fairly well in turf by renewing the bulbs occasionally. The variety Heavenly Blue, in addition to its exceptional value as a garden flower, is charming in a cut state, and will last a considerable time in water, its fragrant flowers always being greatly admired when used in this way. The two Tassel Hyacinths (*Muscari comosum* and *M. Heldreichii*) both have deep blue flowers, but neither is suitable for creating anything like a bold display in the garden. In writing of blue-flowered spring bulbs, the ordinary bedding or Dutch Hyacinths must not be omitted. In such varieties as Czar Peter, Blondin and Queen of the Blues we find pale

shades of this colour, while the varieties Charles Dickens, Grand Maître and King of the Blues give us flowers of darker hue. If we stretch our colour so as to include violet, the ordinary bedding Crocuses of that colour may be considered in any scheme of blue that may be desired during the early months of the year. Instead of striving for a blue border at one season only, as is too often the case, an effort should be made to have it at least presentable during spring, summer and autumn, and by a free, though judicious, use of the bulbs named,

the first of the three seasons would not present many difficulties. All will thrive in any reasonably good garden soil, a trait that is not yet developed in many blue-flowered plants of a non-bulbous character.

H. W.

THE ROSE PROSPECTS OF AUTUMN.

THE thorough ripening of the first wood which many of our Roses experienced during the hot summer days has, no doubt, had much to do with the glowing prospects for autumn flowers. Trim away what old wood can be spared, cutting back to the most promising young breaks and removing all spent flower-trusses. This will be found a great help towards the better development of late bloom. The following are most promising here, and cannot well fail to give us a grand show if ordinary weather prevails: Betty, Rayon d'Or, Château de Clos Vougeot, Lady Hillingdon, A. R. Waddell, Mrs. David McKee, Dorothy Ratcliff, Lyon Rose, Sunburst, Lady Pirrie, Irish Elegance, Irish Beauty, Mme. Abel Chatenay, Mme. Falcot, Marie van Houtte, Sunset, Mrs. Alfred Tate, George C. Waud, Richmond, Lady Battersea and Simplicity. This is but a short list of the best, and it could easily be doubled. Snow Queen, Victor Hugo and General Jacqueminot promise best among the Hybrid Perpetuals, and Zephyrine Drouhin is sure to be there. Among the best all through the season, and likely to continue so, are the Dwarf Polyanthas, the following being especially noticeable: Phyllis, Aschenbrödel, Mrs. W. H. Cutbush, Jessie, Orleans, Rödhätte and Erna Teschendorff. I am sorry to see so much mildew upon the stems and foliage of our Moss Roses.

Uckfield.

A. P.



CHIONODOXA LUCILIAE

SARDENSIS.

(Natural size.)

departed the most beautiful member of the whole family, known as Heavenly Blue, expands its blossoms with a freedom that we find in few plants. I know of no flower capable of creating such a wonderful and beautiful display in the garden as this Grape Hyacinth, and the sight of a long, narrow border filled with it that I saw in Surrey

NOTES ON TULIPS.

BY THE REV. JOSEPH JACOB.

WERE old Mrs. Malaprop ever to take to writing on the Tulip, she would very likely, among her other observations, say that it was a "paddlebox." The flower is such a strange bundle of contradictions. It was grown by Gerard, Parkinson and Rea, and yet it is only "coming in." It is quite easy to manage, and yet needs great care when it is growing. It is never perfect until it is "broken." It entirely vanishes, but is "all there" when lifted. It is known and unknown. Bright and dull. The foregoing are sufficient enigmas to introduce as *hors-d'œuvre* to the more practical fare which is to follow.

First, about the uses or purposes to which Tulips may be applied: Bedding, clumps in borders, rockwork, and beds in the reserve garden for cutting are those for which they are generally employed. Why, however, should not a collection be formed? I am a great believer in every gardener having a definite object or objects in their gardening, over and above the more general one of having a nice bright show of flowers or a good crop of vegetables. It gives a zest which I can only compare to the effect of a long march on the saucy appetite of a recruit. The pleasure of anticipation, of ordering varieties that are unknown, is great and alluring, and when it can be indulged in with a small expenditure of money it must appeal to a fairly wide circle of gardening enthusiasts. Pearsons of Lowdham catalogue thirty-two varieties of Cottage and thirty-one of Darwin

Tulips. Of the whole sixty-three, only one (Louis XIV.) runs into double figures of shillings per dozen; and only eight, including the above, touch or are over half a crown.

Somewhere about a guinea would purchase three bulbs of each of the fifty-five remaining varieties. There must be many readers to whom this would not be a very great extravagance, even in war-time, and such an expenditure would be quite in accord with the recent encyclical letter of the Royal Horticultural Society. It will help to "keep firms going and to meet current expenses which cannot be suspended."

Let me try to enumerate some of the utilities of a collection. To begin with, there is the joy of expectancy and the pleasure of comparison, which, once the start is made, may easily develop into hardy annuals by the yearly addition of new varieties. Then, if Tulips are required elsewhere,

it is an easier matter to select the most appropriate colours, or the shades one likes best, with the flowers under one's eyes, than if we were obliged to rely on written descriptions.

Cheap Varieties.—In my notes in THE GARDEN for September 11 I gave a list of six good cheap Darwins (Fra Angelico, Clara Butt, Pride of Haarlem, Margaret, Baronne de la Tonnaye, and King Harold or Loveliness). A companion list of Cottage varieties would be: La Merveille (orange scarlet), gesneriana spathulata (brilliant cochineal red), Golden Crown (golden yellow, edged and flushed red), Picotee (pointed white, edged and flushed rose), Bouton d'Or (deep rich yellow, a Tulip that grows very much when in bloom) and Rosalind (rose).

Hammer Hales and Boadicea.—Readers of THE GARDEN will know that there have been very

signified that it had sown its wild oats, and that henceforth it was going to settle down. But our flower is such a "paddlebox" that that is what it did not do, although to the casual observer it would appear as if it had done so. The "curious" are still nearly driven mad with its vagaries. They have evolved with much patience a hard and fast set of requirements, and every bloom must be prepared to fill them or to be put on one side. Now what is so perplexing is to have Annie Macgregor or Trip to Stockport quite all right one season, while the next they will display all manner of bad habits, such as "flushing" or "skipping." The modern Darwin grower is likewise seriously troubled from time to time with the vagaries of his flowers, but in a different way. He has bought or planted what he took to be a self-coloured variety, but when blooming-time



COTTAGE TULIPS IN AN OLD ENGLISH GARDEN.

extensive trials of Tulips, both this year and last, at Wisley Gardens, culminating in the all-Tulip Show at Vincent Square on May 13 and 14. I then became aware that there are two varieties called Hammer Hales in commerce—one, large, ill-conditioned looking and egg-shaped; the other, smart, shapely and somewhat pointed. No wonder Mr. Wallace asked me how I could "crack up" Hammer Hales in the way I do, when he had the poor one in his mind's eye. What I have previously called Hammer Hales is the same as his Boadicea, so all that I have ever said about Hammer Hales must be transferred to that variety. In future I only know Boadicea. It is one of the finest and most satisfactory Tulips grown.

Breaking.—The old florists' idea of a Tulip was that it was in a kind of hobbledehoy state until it (to use a technical word) "broke" or became "rectified." Its donning a coat of many colours

comes round he is mortified to find that it has become striped. Sometimes the dealer is blamed for sending an untrue stock, but this is unfair. The stock would be true enough, only a certain proportion have suddenly become striped or rectified when they were not wanted to do so. No one can tell why, and no one can tell when, such a change will take place. That is what is so aggravating. Numerous theories have been suggested, but not one of them seems to work. Is it lime? Is it poor soil? Is it the use of chemical manure of some kind? Is it a too frequent change of soil? When did or does the alteration take place?

In the seventeenth century a man in Brussels is said to have made a regular business of "breaking" Tulips. There is a substantial reward waiting to-day for the man who will do the reverse, *i.e.*, keep them in their self condition.

WORK AMONG THE CHRYSANTHEMUMS.

Plants for Lifting.—There are many cultivators of Chrysanthemums who do not grow large numbers in flower-pots during the spring and summer months, but grow them in boxes in the spring and then plant them in the open borders, finally lifting and potting the specimens in the autumn. There are others who cultivate many in pots as well as in the borders for lifting later on, as stated above. Where possible and convenient, the plants to be lifted should be in the bud stage when this work is done; that is, the flower-buds should be formed when the plants are lifted and potted. It is advisable to lift and pot a few at a time if a regular supply of blooms is the object, and, as we now possess so many excellent varieties, early, late and medium, there should be no difficulty experienced in securing an unbroken supply of fresh blooms.

Do not lift any plants from a dry soil, as they would fade very much for a long time after being potted, however carefully they may be treated. If the weather is dry and the plants are ready for lifting, thoroughly soak the soil at least twenty-four hours prior to lifting. If this is done, the stems and leaves will become well charged with moisture, the soil will be in a fit state to handle, and the plants will not show signs of distress afterwards. If lifted before the buds are formed and placed in houses forthwith, the stems of the plants grow extra long, are weakly, and do not bear flowers of high merit.

Have the pots in readiness, clean and of various sizes, so as to accommodate plants with many roots and those possessing fewer. With a garden fork lift the plants, preserving the roots and retaining some of the garden soil with them. Pass some good compost through a 1-inch mesh sieve and add to it some well-rotted manure; sand is not needed. In the bottom of each pot put a single hollow crock and some half-rotted leaves or rough pieces of fibrous loam, as all the space possible will be needed for the roots and new soil, which cannot be in great bulk in any case. Pot firmly, give water once and also syringe the leaves, then put the plants in a shed, or in a glass-house, and shade heavily for two days, syringing the foliage twice each day. Leave the plants in the shed two days, or on the north side of a wall or hedge a similar time, then place them in the glass structure. If the soil in the pots is kept in a medium state of moisture, new roots will soon take possession, when freer ventilation of the house, less syringing of the foliage, and shading will be required. All this careful treatment will result in the retention of the basal leaves as well as in the production of nice flowers. Lifted plants, so treated, are very beautiful and useful.

The Single-Flowered Varieties.—Unlike the late-flowered Japanese, the singles bear beautiful blooms on late growths, that is, shoots that grow after the middle of August. The flowers are of good form, of fair size and very rich in colour, and, furthermore, from three to five blooms can be obtained from each main stem, as they grow so freely after a crown bud has formed and been pinched out. Cultivators who are growing the single-flowered varieties for the first time this year need not be over-anxious as to the flowering of the plants; the blooms will not be unduly late, as the buds open so quickly. Nearly all the plants of this section grow more than 4 feet high.

When blooming on terminal shoots they generally average 5 feet in height, so that space for them under glass should be got ready accordingly.

Suckers.—These, too, are growing rapidly, and they are stronger and more numerous on the singles than any others, unless it be the border varieties. Remove them while they are small and without damaging or even disturbing the main roots of the plants in the surface soil.

Feeding.—During dull and wet weather give artificial manures (not liquid manure) in small doses and not too frequently. By so doing the judicious feeding of the plants can be continued even while it is unwise to apply stimulants in liquid



A SPRAY OF THE LITTLE KNOWN SHRUB
PLAGIANTHUS LYALLI.

form. Mix the artificial manures with finely sifted rich loam, and put on the mixture in very thin layers and frequently—twice a week at this stage.

Hardening the Stems.—The plants at this stage cannot be exposed too much to the sun and air, because they grow so rapidly, and when once they are placed under glass the new wood does not harden very much; this must be done in the open air.

Plants with Forward Buds.—Some of the Japanese varieties are rather forward and must be duly protected. The blooms are not improved,

but marred, if the petals which are now showing colour are exposed to the dews or to rain. Make preparations for placing the plants in a cool, well-ventilated greenhouse, conservatory or Peach-house at once. The blooms will be fully developed by the third week in October, and will be useful in a cut state for tall vases when outdoor flowers are becoming scarce, as well as for prolonging the display of blossom in the greenhouse. Feed these plants liberally. AVON.

IXIAS AND SPARAXIS.

THE merits of these pretty South African bulbous plants for the embellishment of the greenhouse are too frequently overlooked. A group of flowering examples during the latter part of the spring is sure to arrest attention, first, for their splendid display of bright-coloured blossoms, and, secondly, from their distinct character. There is nothing in the greenhouse at that time which is at all likely to be confounded with them. My reason for referring to them now is that no time should be lost in potting them up, as the bulbs are small and will quickly lose some of their vitality if kept stored in paper bags in a warehouse. The most suitable compost for both *Ixias* and *Sparaxis* is loam, lightened, according to its consistency, by sand and well-decayed leaf-mould. Good examples may be grown in 5-inch pots, putting six to eight bulbs in each pot. The bulb should be buried at such a depth that the top portion is about three-quarters of an inch below the surface of the soil. After being potted they may be placed in a frame where they are safe from frost, or in a greenhouse from which frost is just excluded, but nothing more. Very little water will be needed till signs of growth appear, after which the supply must be increased. These pretty flowers, with their thin yet firm stems, are very useful for many purposes in a cut state. H. P.

WHAU-WHI OR LACE BARK.

(*PLAGIANTHUS LYALLI*.)

Now is the best time to increase this lovely subject. It is, to my mind, one of the best of summer-flowering shrubs. The beautiful clusters of pure white flowers, which are produced in July, are separately borne upon a stalk about 1½ inches in length. Not only is it free flowering, but another of its merits is its lasting power. The shrub itself has rather a spreading habit. The cuttings should be of this year's wood, about 3 inches to 4 inches long. Prepare a pot (about 5 inches) with sandy loam, making it very firm. Be certain that the drainage is perfect. Prepare cuttings in the usual way and dibble them in with a pointed stick, being very careful to make the soil firm round the base of each. Water the cuttings in and plunge them in a frame of Coconut fibre with a little bottom-heat. It may also be increased by layering, and this is quite a ready means of propagation. Travellers tell us that this is one of the most beautiful trees of the New Zealand flora. It is hardy in the London district, but in the colder parts of the country it should be planted against a wall. The year 1871 is given as the date of its introduction from New Zealand, where it is popularly known as the Lace Bark. A. A.

NOTES ON VEGETABLES.

Celery.—The early batch should have its last watering, thoroughly saturating the roots with liquid manure to increase the size of the sticks, especially if they are required for exhibition, and placing another fold of brown paper on the top, if required, tying it round tightly to make the blanching secure. The late batch to be blanched with soil and kept for winter and spring use should be well watered before earthing, assuming it has not been earthed before. Dust the sides of the trench and the plants with soot to prevent slug attacks, which disfigure so many of the outer leaves.

Cauliflowers and Early Broccoli just forming heads may be much assisted by occasional doses of liquid manure; or, if the ground is mulched, clear water would suffice. Heads that are grown quickly by giving copious root waterings during dry weather are much more succulent and tender than those that take so long to grow during dry weather. Plants intended for putting out early in spring should now be pricked out in frames and kept close for a few days until root action has again started, when the lights should be removed to induce a stocky growth, only replacing them when frost appears likely to occur.

Cardoons.—Continue the blanching of these as growth progresses, being careful to wind the hay-bands closely around the stems and keeping the paper underneath firm.

Rhubarb.—A root should now be lifted carefully, placing it in the Mushroom-house or in any warm, dark structure, covering it to exclude light. Keep the soil moist, encouraging the growth to come away steadily.

Mushrooms.—Continue to collect and prepare material for the beds. Freshly gathered horse-manure, with a fair quantity of short straw, is the best material to use, although for economy a few freshly gathered leaves will add to the bulk where horse-manure is not easily obtained. When a sufficient quantity has been collected for a flat bed 18 inches deep, or a ridge bed 3 feet high, and as much in diameter at the base, throw it into a heap and encourage it to ferment by adding water if the material is too dry, and thus get rid of the obnoxious gases.

Radishes.—Make thin sowings in frames in light, sandy soil. As the seedlings appear, protect the tender growth by covering the glass at night in case of frost. Any late crops outside should have similar protection to ensure completion of growth.

Tomatoes.—Very variable are the results of open-air culture this season. In some localities the wet and cold weather of July quite ruined the prospect of a crop, the plants collapsing by disease of the stems near the surface towards the end of August, at a time when they were nicely set with fruit. This fact emphasises the advantage of having fully grown plants when put out at the end of May. In some drier localities the outdoor crops have been a success. Sunrise and Holmes' Supreme, as usual, have done the best. Any fruit now changing colour should be cut and

placed in a dry, warm room to finish ripening. Plants under glass must not be over-watered nor too freely fed. A steady growth, without too much excitement either by heat or strong stimulants, will be the best conditions in the end. Small plants intended for next year's early crop should be placed near the glass in a temperature of not less than 60° by night to ensure a stocky growth. Do not over-pot them for winter growth; neither should they have too much moisture.

Parsley.—In some gardens a difficulty is experienced in keeping the plants in a healthy growing condition throughout the winter, some constituent in the soil being unsuitable. To obviate this and to ensure a stock, plants raised from seed sown in spring should be lifted and placed in frames of prepared soil consisting largely of charred loam, leaf-mould, wood-ashes and soot, with some sharp sand. Keep the lights somewhat

it is the result of a cross between a Blackberry and a Raspberry, but some are inclined to think that it is a true natural species. However that may be, it is one of the few useful fruits for which we have to thank our American cousins.

It is an exceedingly vigorous subject, frequently making growths 12 feet or more long in one season, hence it must be given plenty of head-room. A favourite situation for it is over an arch, where it forms a beautiful and at the same time useful plant. It delights in a deeply worked, rich and rather heavy loam, which will afford it a cool root-run during the hot days of summer. After the fruits are gathered, the growths which have borne them are cut right out at the base, the best of the young ones being tied in to take their place and for bearing fruit the following year.

As will be seen by the illustration, the fruits are freely produced in large lusters, and they



THE LOGANBERRY. THIS FRUIT SHOULD BE GROWN IN EVERY GARDEN.

close for a few days until new roots are forming; then give abundance of air, finally drawing off the lights in favourable weather to ensure stocky growth.

Lettuce.—Fill the spare lights with plants 6 inches apart where they are intended to heart for autumn use. Where the plants are small, dibble them thickly in frames to ensure a stock for early planting by thinnings, leaving the stronger ones to mature early in the frames.

Swanmore.

E. MOLYNEUX.

THE LOGANBERRY.

With the advent of many new hybrid berries of the Bramble section, the merits of the Loganberry are apt to be overlooked, yet it is a most useful fruit and should find a place in every garden where a fair amount of room exists. Reputedly

much resemble large Raspberries in shape and size, being red in colour when ripe. Owing to a rather acid flavour, they are valued more for preserves than for dessert, although when thoroughly ripened they are very nice.

Propagation is easily effected by pegging down the tips of the young, non-fruiting canes and covering them with soil. Treated thus, they quickly form roots, when they may be severed from the old plants in the autumn, and either grown for one season in a nursery bed or transferred direct to their permanent positions. As planting-time will soon be here, those who have room and suitable soil for a plant should make a point of securing one. Naturally, such a fruit has quickly been made good use of by hybridists, the Lowberry and the Laxtonberry being two good fruits obtained by using it as a parent.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Melons.—At this time of year sunshine may not be so plentiful as one might desire to mature Melons perfectly. Therefore more care is necessary in the management of the plants. Less atmospheric moisture will be necessary than formerly, and a little heat must always be maintained in the pipes. The roots must not be overwatered, especially when the fruits commence to colour.

Plants Under Glass.

Dielytra spectabilis.—Clumps of this useful greenhouse plant may now be potted. Pot them into 7-inch or 8-inch pots, and plunge the pots in ashes out of doors till growth commences. They may then be placed in a cool house.

Azalea indica.—It will not be safe to leave the plants of this any longer outdoors. Before placing them under glass, lay them on their sides and give them a thorough syringing with an insecticide as a precaution against red spider. A house where they can have abundance of air will suit them till they are required for forcing.

Chrysanthemums.—Some varieties of the decorative kinds will need disbudding, and this work must not be delayed when the buds are large enough. The plants must not be neglected in the matter of watering, and stimulants should be afforded till the blooms are well advanced. The houses where the large blooms are expanding must be kept as dry as possible, or the petals will damp.

Calanthes.—The useful *Calanthe Veitchii* is now finishing its growth, and in order to ripen the bulbs perfectly, give them plenty of room so that all the light possible may reach the bulbs. A good circulation of air, combined with a brisk heat in the pipes, will create suitable atmospheric conditions. Keep the roots well supplied with water till the foliage begins to die down.

The Flower Garden.

Wintering Bedding Plants.—The housing of large bedding plants requires very careful forethought where glass accommodation is on a limited scale. In most gardens, fruit-houses which have been cleared of their crops have to be made use of for this purpose. Plants which have to be dug up and repotted should be first placed in a warm, moist house for a week or so, and kept shaded till they have recovered from the check. They may then be placed in a vinery or Peach-house for the winter. *Hydrangea hortensis*, *Cannas* and *Fuchsias* may be stored in a frost-proof shed. Sweet *Verbenas* may be given similar treatment. Here we have several very large specimens which are wintered in a barn. Tuberous-rooted *Begonias* should be lifted and placed in a frame till the foliage has died down; they must then be placed in boxes and stored in a frost-proof shed. *Echeveria secunda glauca* may be planted closely together in a cold frame. *Lobelia cardinalis* may be lifted and placed closely together in boxes, covering the roots with soil. They will be safe in cold frames, providing the glass is covered with mats during very severe frost.

Sweet Peas.—If autumn sowing is contemplated, it should be done as soon as the condition of the ground will allow. The seed should be sown in shallow trenches. If the ground is inclined to be heavy, a little old potting soil will be of considerable benefit. Mice must be guarded against by setting traps along the rows, and as soon as the seedlings are through the soil, strands of black cotton placed over the rows will keep off birds.

The Hardy Fruit Garden.

Figs.—If the weather continues favourable, the fruits will still ripen, providing the trees are not congested with growth. If the growth is too crowded, it should be liberally thinned, as this will also facilitate the ripening of the wood.

Peaches and Nectarines.—When all the fruits have been gathered, all the old fruiting wood may be removed so that that required for next year may have every chance to become thoroughly matured. Give the trees a thorough drenching with an insecticide, and should the roots need water, give

them a soaking with the hose-pipe. Young trees which are inclined to be too strong must be lifted and replanted, using plenty of old brick rubble in the process.

Planting Fruit Trees.—The new stations may now be prepared for the planting of young trees, as this will greatly facilitate the work when the trees arrive from the nursery. Be careful in the selection of varieties, for much disappointment may easily be caused by neglect in this matter. The lifting and root pruning of young trees may be proceeded with now. Most of this work should be done before the turn of the year.

The Kitchen Garden.

Onions.—Take advantage of a wet day to look over the main stock of Onions and remove those which are blemished. These may be put aside for immediate use. The method of roping Onions for long keeping is a good one, as not only do they keep better, but when hung over the roof of a shed the decayed bulbs may easily be detected. Autumn-sown Onions will now be sufficiently advanced to permit of the hoe being run between the rows. Light dustings of soot will be beneficial prior to hoeing.

Tomatoes.—The winter-fruiting plants will now be setting their fruits, and during dull, sunless weather it may be necessary to keep a little heat in the pipes continuously. Admit plenty of air on all favourable occasions and keep the atmosphere dry. A little fresh material placed over the roots occasionally will considerably enhance the swelling of the fruits.

Chicory.—If suitable roots are available, a few may be introduced to the forcing-house. The roots may be planted in large pots or boxes and covered to exclude light.

Mustard and Cress.—A supply of this useful salad may be kept up by sowing frequently in boxes. It is better to make small sowings frequently than to sow large quantities at one time, which often results in a great deal of wastage.

E. HARRISS.

(Head-gardener to Lady Wantage.)
Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

The Flower Garden.

Sweet Peas.—Seeds should be sown in small pots as soon as they can be got, it being generally admitted that finer plants of most varieties result from autumn sowing. If, however, they cannot be sown before the first week in November, they are better left over till January, when they germinate more strongly. Sweet Peas at no time should be subjected to strong heat; in fact, if they are simply kept from being frozen it will suit them, but ample ventilation is essential together with careful watering.

Roses.—Many of the strong-growing varieties, having made long growths, are likely to become loosened at the neck by wind and thereby injured. The longest shoots should be shortened, and the plants made firm to prevent breakages. As the planting season is at hand, lists with notes should be made in readiness.

The Kitchen Garden.

Celery.—The second earthing-up of the main crop must be proceeded with. Care should be taken that the leaf-stalks are kept close together while this is being done, to prevent any soil getting between. If possible, attend to this when the soil is in good working condition.

Cauliflower which was sown early in September should now be pricked out in cold frames 4 inches or 5 inches apart. As slugs are very partial to the young leaves of this vegetable, the latter should be dusted with soot immediately. Keep the lights closed for a few days; afterwards grow as hardily as possible to better withstand the winter.

Spinach.—The late-sown plants should be thinned out, at the same time removing all weeds, which would not perhaps seed during winter, but would impoverish the soil and make it present an untidy appearance. Use the hoe when the soil is sufficiently dry.

Watercress.—Where the grower has not the convenience of a running stream, quite good supplies can be obtained from frames during winter. Plants from seed sown during August are now ready for pricking out in frames. Protection from frost is necessary.

Endive may still be pricked out in frames, allowing a distance of 6 inches between the plants. As the season is not now conducive to a quick growth, less ventilation should be given to encourage more rapid progress.

Fruit Under Glass.

Melons.—Any fruit still remaining in frames will be better cut and kept in a light and warm glasshouse in the full exposure of the sun, where it will have a better chance of ripening. Melons growing indoors must be watered carefully at this season, or the flavour will be ruined. Maintain a minimum temperature of 65° at night and do not spill water on the floors.

Late Vineries.—Where the Grapes are not colouring satisfactorily, help must be given by artificial means. Keep a brisk heat in the pipes constantly, with air on the ventilators top and bottom sufficient to keep the atmosphere in a fresh condition. Bad berries must be looked for and removed at once, avoiding touching any of the surrounding berries.

Midseason Grapes which may still be left hanging will be much better cut and bottled, as not only do they tax the Vines needlessly while left hanging, but they lose colour and, in most cases, shrivel.

The Hardy Fruit Garden.

Fruit Gathering.—A great number of Apples and Pears are ready for pulling, and should not be left to fall. It is well, however, to go over each tree more than once, as all the fruits may not be quite ripe at one time. Preference of space in the fruit-room should be given to late varieties requiring to be kept until spring. Early sorts may be stored in greater bulk, seeing they are to be used so soon. On no account should fruit be pulled before it parts readily from the tree, otherwise shrivelling is certain to take place along with impaired flavour. The ideal fruit-room for storing Apples is under ground or in the shade, and not one which dries up quickly. Pears keep better in a freely ventilated building, which should be dry but not too warm.

Plants Under Glass.

Humea elegans.—The young plants should now be shifted into 5-inch or 6-inch pots, in which they will remain until spring. Use a good compost with sufficient charcoal and grit to keep it porous. This plant quickly shows the bad effects of careless watering, therefore discretion must be used when applying water. Keep the plants in a cool, well-ventilated pit to encourage a sturdy growth.

Tuberous Begonias, now having passed out of bloom, must be given slightly drier treatment, gradually withholding water altogether when the foliage has ripened. Afterwards they can either be laid on their sides in the pots or, if space is not plentiful, shaken out of the soil and stored in a fairly dry shed in boxes covered with Coconut fibre.

Forcing Bulbs.—The early kinds, such as Roman Hyacinths and Paper-White Narcissus, being late in reaching this country during the past summer, they naturally are not so well rooted as they otherwise would have been at this period. It is always better to make certain there are sufficient roots before introducing the bulbs into heat, which should not be too brisk at first.

Malmaisons.—Young plants of varieties with such good habits as Princess of Wales and Duchess of Westminster, which can be flowered successfully during winter, should be shifted into 6-inch pots as soon as they are sufficiently rooted. The compost used must contain a large proportion of broken brick or tiles, charcoal, crushed oyster shell, leaf-mould and silver sand. The loam used must be very fibrous. After potting, water with caution and keep cool, not, however, allowing the temperature to drop below 50°.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

Offices: 20, Tavistock Street, Covent Garden, W.C.

ANSWERS

TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

NEPETA MUSSINII (E. F. C.).—If the plants have outgrown their station, they may be cut back with impunity to quite near their bases. Then, if need be, when they have broken into fresh growth you may lift and divide, or defer the operation till spring. In some soils and districts growth is so abundant that shearing is resorted to annually, though this is not necessary where bold effect is desired, or in those instances where the fuller grey tone of the plant is most appreciated. This is usually attained by two year old plants on the let-alone principle, and in a rather poor soil.

PROPAGATING DOUBLE-FLOWED GYPSOPHILA (F. Norman).—On its own roots the above may be propagated from root cuttings inserted in January, inch-long pieces being sufficient with a greenhouse temperature of 55°. Grafted plants would probably give you nothing more than the stock on which they were worked, unless the plant had subsequently rooted on its own account, and roots from this were taken with the rest. It may, however, be increased by means of cuttings, those preferably secured with a heel from about the base of the plant when about 3 inches long. Such cuttings are not numerous produced, though their numbers may be increased by cutting back the earliest-formed shoots, which causes them to break again.

TREE CARNATIONS (M. Robertson).—The Tree Carnations that flowered last winter and are still in their pots are not likely to do you much further service, and would be best discarded in favour of young plants. Those you put out of doors may, if top-dressed or given liquid manure, do somewhat better, though everything depends upon how they have been treated; and if there are no signs of flowering shoots this month, it is hardly likely that any will be formed later. These plants are best raised annually from cuttings inserted in January and well cultivated throughout the year. Your question, "Ought Cacti to be repotted which have not been touched for years?" must be answered in the affirmative. The time, however, is not now, and May would be much more suitable. It is difficult to know what they are from your description, though we imagine the white, sweet-scented one to be one of the *Phyllocacti*. The best soil mixture for these plants is one composed of loam and old mortar or brick rubble screenings in about equal parts. To these add a little sand, leaf-soil or peat. They require careful handling at such times, perfect drainage, moderate supplies of water during growth, and little or none during the greater part of the winter.

LILY OF THE VALLEY (FORTIN'S) FOR OUTDOORS (A. W.).—The Lily of the Valley in all its forms delights in rich vegetable soils, cool, partially shaded positions, and revels in abundant moisture. A dry, sunny border would therefore be the worst possible place for the plants. In the wild state the plant frequently inhabits dry, shady woods, but in such the growth and flower-spike is short. In the richer soils referred to, stature, length of flower-spike and size of flower are all increased.

Therefore dig or trench the so deeply and add well-decayed manure and leaf-mould liberally. In planting keep the crowns well out of sight, and arrange them singly 6 inches asunder in rows about 9 inches apart. Thus treated, a bed with annual mulching and liquid manure would be good for years. The finest development of this plant we have ever seen was in a Thames-side garden, where, in addition to the above treatment, the ground was occasionally flooded for short periods in winter time. The position was moderately sheltered, though suffering much from fog and damp by reason of the close proximity of the river. In your case the selection of a rather sheltered spot would be desirable.

LILIUM AURATUM FAILING (M. F. C.).—The defective or deformed buds are primarily the result of root inactivity, and, in all probability, if you examine the bulbs you would find the basal roots deficient in numbers or in some instances quite absent. It is largely due to the drastic measures employed in Japan prior to the bulbs being packed for shipment to this country, and which includes denuding the bulbs of their existing roots. Subsequently, for a year, they have to depend for their existence on the stem roots and the meagre supplies which are issued from the base of the bulbs, and their future depends upon these being many or few. Usually the variety *platyphyllum* is better behaved because of a more vigorous root action. Otherwise the cultivator in this country is well-nigh helpless. The only way to destroy the fungus would be by digging out and burning it and the affected soil area, or you may bury it in a deep pit and cover with gas-lime or apply weed killer. These, of course, cannot be employed among the shrubs, though a heavy liming of the soil in addition to digging out and burning the affected areas might also prove of service.

LILIES (H. F. Sykes).—The vast majority of Lilies are hardy enough and few require to be lifted each year; the chief trouble is to establish them in suitable soil. You say nothing about your garden, whether it is in sun or shade, and not a few species are benefited by protection from late spring frosts. This is best done by planting them in groups among low-growing shrubs, though this is not essential in a garden moderately well sheltered. The following are both hardy, robust of constitution, and well suited to your garden soil as it exists or with the addition of a third of leaf-mould and sharp grit. Well-drained, well-cultivated soil is essential to all. *L. candidum*, the white Madonna Lily, should have a dry, rather sunny spot in not over-rich soil. *L. croceum*, *L. excelsum*, *L. Martagon*, *L. M. album*, *L. chalcedonicum*, *L. pyrenaicum*, *L. pomponium verum*, *L. umbellatum* *Diadem*, *L. u. grandiflorum*, *L. u. incomparabile*, **L. colchicum*, *L. bulbiferum*, *L. pardalinum*, **L. Hansoni*, the last two preferring a little peat or plenty of leaf-soil with the staple, and a position sheltered from hot sun. To these may be added **L. Henryi*, **L. speciosum rubrum* and *cruentum*, **L. s. Melpomene* and **L. s. Krætzleri*, all of which, in addition to being planted 6 inches deep, should have a little well-decayed manure incorporated with the lower soil. *L. tigrinum Fortunei*, *L. t. splendens*, and *L. t. flore pleno* should have light, freely drained soil, while **L. auratum platyphyllum*, one of the most noble of Lilies, will repay for a special bed of loam, leaf-mould and grit in about equal parts. It should be planted 6 inches deep at least in a sheltered place, the bulbs well surrounded by sand. The Madonna Lily should be planted immediately, the remainder as early as possible. The best display would follow planting in groups of three or six bulbs to each group. Those marked by an asterisk should have a mound of ashes or Coconut fibre placed over their stations for the first winter to throw off excessive wet. The selection given are in flower from late in May to the end of September or later.

TREES AND SHRUBS.

EVERGREEN CLIMBING PLANT FOR WALL WITH NORTHERLY ASPECT (E. T. M.).—There is nothing better for a wall with a northerly aspect than some of the small-leaved kinds of Ivy, like *Hedera Helix* var. *donerailensis*, or forms of *H. H. marginata*, which have red or golden margins to the leaves.

COPPER-LEAVED PLUM FRUITING (Huntly).—The Copper-leaved Plum (*Prunus cerasifera atropurpurea*, or *P. Pissardii* as it is often called) has fruited in numerous places this year. It is not an uncommon event for it to produce fruits, but it rarely bears a good crop in this country, probably by reason of its early flowering, cold weather being against the fertilisation of the flowers.

TREATMENT OF MUEHLENBECKIA (H. G. G.).—You cannot do better than cut your plant of *Muehlenbeckia* back below the point where the branches have become twisted or bent over. It is not really necessary to cut it back to the ground line, and it is probable that it would start into growth again better if not cut into very old wood. Any growth that is in the way may be removed now, but the more severe pruning had better be left until March or early April.

BLEACHING HEATHER (A. B. W.).—We know nothing of bleaching these plants, but such as the white Scotch Heather, *Erica cinerea alba*, and the white-flowered forms of the Ling, *Calluna (Erica) vulgaris*, should at least require no such treatment, since the flowers remain effective for weeks, often months. The best of these varieties are *alba*, *Serlei* and *Hammondii*, and of late years a considerable trade has been done in them for cutting for the Scottish and other markets.

HIBISCUS SYRIACUS (A. B. H.).—This cannot generally be considered a success in Scotland, though in some South and West Scotland districts it grows well and flowers annually. In some other gardens in those

districts, however, it either flowers irregularly or does not bloom at all. It does not flower in the North of England. We know it has been tried in two South of Scotland gardens for years, but has never produced a flower. It is a plant requiring a mild climate and a sunny position. Even then it is not reliable in Scotland.

FLOWERING SHRUBS FOR COLOUR AND EFFECT (Veronica).—The following shrubs are likely to suit your purpose: *Spiraea arguta*, 3 feet to 4 feet, white, April; *Philadelphus Lemoini erectus*, 2½ feet to 4 feet, white, should be pruned hard after flowering in June; *Cytisus praecox*, 3 feet to 4 feet, cream, May; *Spiraea japonica* var. *Anthony Waterer*, 1½ feet to 2 feet, red, summer; *Diervilla Eva Rathke*, 3 feet, red, June to August; *Ceanothus Gloire de Versailles*, 3 feet, blue, July to October; *Veronica speciosa*, 2 feet to 4 feet, flowers blue, red or white, autumn and winter; *Forsythia intermedia densiflora*, 4 feet, yellow, April; *Cydonia Maulei superba*, 2 feet to 2½ feet, red, May and June; *Escallonia philippiana*, 3 feet to 4 feet, white, July. The following Liliiums may be grown: *Henryi*, *candidum*, *pardalinum*, *bulbiferum*, *chalcedonicum*, *auratum*, *croceum*, *Hansoni*, *Martagon*, *szovitzianum*, *pyrenaicum* and *speciosum*.

AZALEAS FAILING (T. Q.).—It is impossible to state definitely the reason of your Azaleas behaving in the way they have done. Several suggestions might be made, and each wide of the mark. One thing which is very apparent is that the sprays from the three other plants show that there has been nothing wrong in their treatment. It is more than probable that the roots of the unhealthy plants are in a bad state, and the trouble may have started some time before they came under your care. Then the change into the mansion, if only for a few days, would, with the dry atmosphere to which the plants were there subjected, inflict a strain on them. A succession of very heavy rains after they were stood out of doors would then tend to finish matters. If you examine the roots, we expect you will find that the greater part of them are dead. You speak of the plants being quite dwarf. Is it possible that two plants were put together when very young, and after growing up together for so long, one of them has at last died? We are sorry that we cannot give a more decided answer, but, as above stated, we think the trouble commenced some time before you took charge. The slight yellow marks noticed by you when you came would indicate an unhealthy condition of the roots.

ROSE GARDEN.

ROSE E. VEYRAT HERMANOS (Thos. H. Smith).—We have this Rose growing in the aspect you name, N.N.W., and it blooms well. We should advise well preparing the border, and, if possible, training the growths out laterally, as the variety is rather a shy bloomer, and this induces blooming.

PRUNING WEEPING ROSES (O. G. P.).—It would have been best had the trees been pruned soon after flowering in July. The growths that have flowered should be removed, or at least most of them. This will give the new growths a better chance of developing. But it is not too late to do the work now. Do not cut away any of the young growths. You might pinch out the points of the youngest of them in October. This would help them to harden for the winter.

DOROTHY PERKINS AND ITS WHITE SPORT (Chas. Comfort).—This Rose is very sportive, and probably the reason you have two shades of the pink form is that the plants were derived from cuttings. Possibly the different positions in which the plants are grown would also account for this. As to the white variety, that known as *Cant's White* is the purest, but even this is liable to throw off pinkish sprays. The flesh-tinted spray sent may in time revert to the pure white. We have budded from such sprays, only to find the next year the plants gave pure white clusters. Lady Godiva was a sport of Dorothy Perkins. We have also seen both white and pink clusters on the same plant of Dorothy Perkins.

CLIMBING ROSES WITH EXHIBITION BLOOMS (Pro Rosa).—There are several grand Roses quite suitable for your purpose, and we can thoroughly recommend those named below for your arches. No. 1.—Climbing Caroline Testout and Climbing Lady Ashtown. No. 2.—Climbing Mélanie Soupert and Climbing Paul Ledé. No. 3.—Hugh Dickson and J. B. Clark. No. 4.—Climbing White Maman Cochet and Climbing Kaiserin Augusta Victoria. No. 5.—Climbing Mrs. W. J. Grant and Climbing Richmond. No. 6.—Mrs. Stewart Clark and Mme. Jules Gravereaux. Should you desire other sorts, we can recommend Annie Crawford, Mme. Wagram, Frau Karl Druschki, Candeur Lyonnaise, Coronation (Hybrid Perpetual) and Heinrich Munch. These climbing sports of well-known varieties should not be cut back hard the first year. Allow at least 4 feet to 5 feet of their growths to remain. Later on, when well established, you can cut away the old wood and retain the new growths almost their full length. Be careful to plant in deeply dug, well-manured soil, and do not forget to water liberally with liquid manure during early summer.

ROSE FOLIAGE SPOTTED AND DISEASED (L. Knox).—The plants are attacked by the black spot fungus and also red rust. It is useless to spray now, but we advise you to gather up all the foliage that has fallen and burn it; then in November transplant the Roses either to a new position or to their present site, taking care to well trench the land in either case. Before removing the plants it will be well to take away the surface soil to a depth of about 2 inches and burn it, as the resting spores of the fungus will abound in the surface soil. When removing the plants, cut this season's growths back to about 6 inches and remove all the foliage. You can then prune in the

ordinary way next spring. Early next summer spray the plants with Bordeaux mixture, and do this throughout the season at intervals of about ten days. Probably you have a lot of the old Hybrid Perpetual Roses, which are particularly susceptible to red rust and black spot; if so, discard them for the more desirable Hybrid Teas.

FRUIT GARDEN.

FIG TREE DROPPING ITS FRUIT (*Miss Sykes*).—The fruit (on the sample branch sent) is on the shoot of this year's growth (what is commonly termed the second crop). This second crop ripens very well on trees growing under glass, but never on trees growing out of doors. The fruit which ripens out of doors is always borne on the shoots of last year's growth and should be ripe now.

INSECT ON PEAR LEAVES (*E. C.*).—The insect on the Pear leaf sent is the Pear slugworm. It feeds also on Cherry, and is the grub of a sawfly. The sawfly is a small four-winged fly which lays its eggs on the leaves of Pear or Cherry, and, as you have seen, the larvae feed on the upper surface of the leaves. Later they become very dark green, almost black, and when they have eaten all they can, fall to the ground, where they bury themselves through the winter, the first brood of flies appearing about June. The best means of dealing with them is to dust the foliage with powdered lime. This adheres to the insect's coat, which it endeavours to change. Dusting again within two days makes it want to change its coat again, but it is unable to do so and dies. The removal of the top 3 inches or 4 inches of soil during winter would also be a good measure, for it would enable you to burn or bury the larvae very deeply.

PEACHES DECAYING (*H. H.*).—The Peach was rotten when received, and therefore served no useful purpose in giving a clue as to the cause of its decay. However, we gather from your letter that the cause of the trouble has been stone splitting or decay, which is the same thing. Judging by the enquiries we have had, this complaint has been general this year. We have no certain and exact knowledge as to what is the cause of this disease. Some attribute it to ants finding their way to the stones through an opening at the base of the stalk of the fruit and thus causing the mischief. Others contend that the disease is due to defective fertilisation of the flowers at the time they are open. We believe this to be the true cause. Next year be careful to fertilise the flowers artificially by impregnating the stigma or centre column of the flower with the pollen of some other variety in bloom at the time. The best way of doing this is by rubbing a rabbit's tail over the pollen, and then applying it to the end of the stigma of the flower you wish to fertilise. This should be done about noon on a fine day when the pollen is dry.

MISCELLANEOUS.

ANTIRRHINUM FOLIAGE DISEASED (*Miss R. E.*).—We fear you will continue to have trouble with the bed of which you speak, as it seems thoroughly infested with the fungus *Botrytis*, which has attacked your Lilies, your Tulips, and apparently also the Antirrhinums. This fungus in its various forms is very frequent, especially in richly manured soil deficient in lime, and probably also deficient in potash. Possibly the bed is somewhat exposed. We think your best plan would be to remove all the soil from it and replace with fresh, mixed with chalk, and see also that the drainage is of the best. Probably the addition of wood-ashes would also be an advantage. It is hardly likely the Antirrhinums will recover, but if you could take cuttings of healthy shoots about the beginning of October, there might be a chance of keeping them healthy in different soil.

ROSE SOIL (*R. F. C.*).—Your soil needs enriching with good organic manure, such as cow-manure. We advise you to have the beds well trenched, and work in liberally good, well-rotted cow or pig manure with the lower spit of soil. You cannot well give too much of such manure if you take care it is put well down, say, at least 18 inches from the surface. This would form a nice cool medium for the roots when they reach it next summer. At the same time work into this lower soil some basic slag, at the rate of 6oz. to the square yard. If you can obtain some well-decayed hot-bed manure, you might incorporate a moderate amount of this to the upper 18 inches, well mixing it as the trenching proceeds. We advise you to make a heap of all lawn edgings and old potting soil, and throw on this during the winter any liquid manure you can collect. This would make fine material to spread on the beds in May. A soil such as yours needs enriching as suggested in order to grow good quality Roses. You must take care to plant very firmly, and see that the roots are pressed again after the plants have been set in position a week or so. If you are in a position to obtain spent hops, these could be added to the heap of mixture mentioned above with considerable advantage, and would make an excellent mulch for summer use.

HOW TO INCREASE TULIPS AND LIFTING LILIES (*Mrs. Glossop*).—Grade your Tulips into three sizes. Plant all the large ones (such as you would expect to buy from a dealer) in places where you want flowers for garden decoration. Then plant the second size in beds in the kitchen garden or elsewhere, so that they can be used for cutting, as some of them will not bloom. These should be put in before the end of September. The third—top of your thumb—size plant at once 1½ inches deep and 1 inch between the little bulbs, in beds. A few will bring quite small flowers, but

the majority will not flower. To ensure these mites being put in properly, it is best to make the bed or beds the desired size, and then to throw the soil out before planting. In this third size the rows should be 3 inches apart. These should be put into the ground as soon as possible. With regard to your Lilies, much depends on the nature of the soil. If light and well drained, all three might do very well without lifting, but it is doubtful if longiflorum would be hardy with you, so it would be best to lift and replant. If the Lilies are planted among shrubs, it is, of course, a great protection.

NAMES OF FRUIT.—*P. P.*—1 and 12, Lady Henniker; 2, Cobham Pippin; 3, Easter Beurré; 4, Beurré Diel; 5, Keswick Codlin; 6, Williams' Bon Chrétien; 7, Wellington; 8, Warner's King; 9, Beurré Clairgeau; 10, deformed fruit, cannot recognise; 11, Glou Morceau; 13, New Hawthornden; 14, Blenheim Orange; 15, Lord Grosvenor; 16, Yorkshire Beauty; 17, Marguerite Marillat; 18, Windsor Pear; 19, Beurré Superfin; 20, Beurré Goubault. —*F. W.*—1 and 4, Marie Louise d'Uccle; 2, Pitmaston Duchess; 3, Doyenné Boussoch. —*Miss Holmes*.—1, Mank's Codlin; 2, Bramley's Seedling; 3 and 4, not recognised; 5 and 6, Ribston Pippin; 7, Lord Derby; 8, Golden Noble; 9, Sheep's Snout; 10, not recognised; 11, Worcester Pearmain. —*A. T. U.*—*Reigate*.—1, Williams' Bon Chrétien; 2, Swan's Egg; 3, Emile d'Heyst; 4 and 5, Trout Pear; 6, Broom Park; 7, New Hawthornden; 8, Caillot Rosat; 9, Lord Suffield. —*Elizabeth*.—1, Thorne Pippin; 2, Kerry Pippin; 3, Mank's Codlin; 4, Annie Elizabeth; 5, Hawthornden Pippin; 6, Bismarck. —*A. H.*—1, King of the Pippins; 2, Hawthornden; 3, Golden Spire; 4, Emperor Alexander; 5, The Queen; 6, Mank's Codlin. —*W. P. L.*—Cox's Orange Pippin.

NAMES OF PLANTS.—*Fan*.—*Magnolia acuminata*. —*H. G. S.*—*Brasted*.—In gardens and nurseries grown as *Rubus fruticosus* flore roseo pleno; the botanical name is *Rubus ulmifolius* flore pleno. —*Mrs. Hart*.—Roses: 1, Papa Gontier; 3, Lady Ashtown; 4, Lady Battersea; 5, Enchantress; 6, Mme. Lambert; 7, Countess of Gosford; 8, Admiral Dewey; 9, Souvenir de Pierre Notting; 12, Marie van Houtte. The Roses had travelled very badly, and most of them were too far advanced when cut. —*S. R. H.*—*Cork*.—1, *Campanula lactiflora*; 2, *C. lipifolia* variety; 3, *Lotus corniculatus*; 4, cannot identify, too scrappy; 5, *Aster acris*. We are not acquainted with an Encrusted Saxifrage named Top-Saver. —*Curious*.—1, *Eupatorium purpureum*; 2, *Helenium autumnale cupreum*. —*T. C. Crackers*.—1, *Taxodium distichum*; 2, *Tsuga canadensis*.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

The fortnightly meeting of this society was held at Vincent Square, Westminster, on September 28. Vegetables, both competitive and non-competitive, formed the chief feature of the exhibition, while hardy flowers were shown in great profusion.

FLORAL COMMITTEE.

Present: H. B. May, Esq. (chairman), and Messrs. C. T. Drury, E. A. Bowles, G. Harrow, R. C. Notcutt, J. Green, J. W. Barr, W. J. Bean, R. W. Wallace, G. Reuthe, J. W. Moorman, J. F. McLeod, W. Howe, T. Stevenson, W. Bain, C. Dixon, A. Turner, H. J. Jones, C. E. Shea, C. E. Pearson, W. P. Thomson, E. H. Jenkins, C. R. Fielder, J. Dickson, G. Paul and W. Cuthbertson.

Nothing was more finely shown or effectively displayed than the magnificent grouping of *Ixoras* from Lady Nunburnholme, Watter Priory, York (gardener, Mr. F. Jordan), the excellent group at once a credit to cultural skill and to a phase of indoor gardening not too frequently seen. The group was of one kind—*I. coccinea*, which for freedom of flowering and rich colouring is not easily surpassed. Arranged with Palms, Crotons, Ferns and other ornamental foliage, this constituted a great attraction.

Messrs. Barr and Sons, Covent Garden, W.C., showed a considerable variety of *Nerines* in many brilliant and pretty shades of colour. Rosebud is a most charming variety with nearly erect, deep rose-coloured flowers with white base. It is also very distinct, which in these plants is a highly important item.

Messrs. Frank Cant and Co., Baiswick Rose Gardens, Colchester, staged a nice lot of Roses, of which Rayon d'Or, Irish Elegance, Mrs. Christie Miller (fine pink), Mrs. Alfred Tate, Snow Queen, Juliet, Mme. Jean Dupuy (in delightful form), Mrs. Foley Hobbs, Alexander Hill Gray (deep cream, and a fine autumn Rose), Lady Hillingdon (quite rich in colour), and Joseph Hill were a few among many good things. Lyon Rose was also very fine.

Messrs. Dobbie and Co., Edinburgh, displayed a capital assortment of early flowering Chrysanthemums. Goacher's Crimson, Golden Diana, Tuckwood Early Beauty (fine deep orange red), Radiana (reddish), Mrs. W. Sydenham (deep crimson), and Polly and Crimson Polly are a few among many that were good.

Mr. F. Bannister, Royston, Herts, showed a miscellaneous group of *Salvia* Pride of Zurich, with Verbenas and other things. Fans of Fern sporophylls six weeks after sowing were an interesting feature.

Messrs. B. R. Cant and Sons, Colchester, displayed a lovely lot of Roses, the flowers in the main fresh, clean and delightfully coloured. Of such were Lady Hillingdon, Lyon Rose, Mme. Edouard Herriot, Rayon d'Or, Snow Queen, Mrs. E. Powell (fine red), George Dickson (a glorious deep reddish crimson), Red Letter Day (fine semi-double crimson), Queen of the Musk (salmon and buff), Louise

Catherine Breslau (coppery tone) and Ellen Poulsen, all of which were charming in an excellent group.

Mr. Elisha J. Hicks, Twyford, had some excellent vases of Roses, of which Mrs. George Norwood (pink), one of the most beautiful and certainly one of the most fragrant, was charming. Mrs. John Foster is a new red raised by Mr. Hicks, a gloriously coloured Rose of pronounced fragrance with the Hugh Dickson habit of growth. It is as full of promise as it is of beauty and fragrance. Princess Mary (single crimson) and Joanna Bridge (creamy yellow) were also admirably shown. This excellent quartet was raised by Mr. Hicks.

Mr. G. W. Miller, Wisbech, arranged a table of Pyrethrums, Phloxes, Kniphofias, Michaelmas Daisies, Pentstemons and other showy plants. Rudbeckia Herbstone was very showy.

The Misses Hopkins, Shepperton-on-Thames, showed many seasonable hardy flowers, of which *Salvia uliginosa* and *Helianthus sparsifolius* were the more important.

Messrs. W. Cutbush and Sons, Highgate, N., showed a nice lot of Michaelmas Daisies, of which *Aster cordifolius* Ideal, a lovely mass of lilac blue, was one of the more charming. *Aster Amellus* in variety was also a feature.

Messrs. W. Wells and Co., Merstham, staged a lovely lot of Chrysanthemums, of which Golden Polly, Framfield Early White, Verona (bronze), Crimson Polly, Early Buttercup, Belle (mauve), and Le Cygne (pure white) were the more important.

Messrs. G. and A. Clark, Dover, showed Michaelmas Daisies in variety, *Helianthus sparsifolius* and other seasonable flowers.

Mr. G. Reuthe, Keston, Kent, staged excellent pots of *Colchicum speciosum* and *C. s. album*, together with *Zauschneria californica*, *Desmodium tiliaefolium*, *Tropaeolum tuberosum*, *Desfontainia spinosa*, *Tricuspidaria dependens*, *Cyclamen hederifolium album*, *Salix Bockii* (a most distinct species), *Gentiana Pneumonanthe* and other interesting plants.

Messrs. Allwood Brothers, Hayward's Heath, had a capital exhibit of Carnations, Mandarin, Champion (scarlet), Rosalind (fancy), Rosette, Mary Allwood and Salmon Enchantress being among the more important.

Mr. James Box, Hayward's Heath, showed an excellent group of hardy plants in season. *Aster Amellus* in variety, *Delphiniums*, *Anemone japonica* in variety, *Cimicifuga simplex* (in fine condition), *Aconitum Fisheri* (fine blue), *Pernettya mucronata alba* and *Helianthus sparsifolius* were excellent.

Messrs. George Bunyard and Co., Maidstone, showed such things as *Helianthus sparsifolius*, *Aster Peggy Ballard*, *A. White Climax*, *Heleniums*, *Tritomas* and other good autumn-flowering subjects.

Messrs. H. B. May and Sons, Edmonton, filled a table with an assortment of shrubby Veronicas, Ferns and Bouvardias. The Veronicas were very beautiful, such as Favourite (deep purple), Diamant (reddish), Valère (violet blue), Eveline (rosy pink), Coquette (mauve), Mauvena (deep mauve) and Gabrielle (rose pink) were the more distinct.

Roses from the Rev. J. H. Pemberton, Romford, were very charming. Callisto (cream and gold), Clytemnestra, Trier (blush white, gold anthers), Queen Alexandra (single white and pink), Danaë (cream and yellow) and Moonlight (white) were all beautiful in the cluster class. Rayon d'Or, Charles Le Lapisse (pink) and Mrs. Joseph H. Welch (rose pink) were other good things.

Mr. Ernest Ballard, Colwall, Hereford, had a superb table of new Michaelmas Daisies, King Albert (double blue), Edith Goodwin (violet blue), Corona (light mauve), Nancy Ballard (rosy), Rosy Morn (very pretty), Cloudy Blue (very beautiful), Ragtime (rosy mauve) and Lady Lloyd (deep rosy mauve) being some of the best in a fine lot.

Mr. J. B. Riding, Chingford, Essex, staged Dahlias admirably, the decorative sorts being much in evidence. Princess Juliana (white), Selma (pink), Mme. Capron, Harmony (lovely salmon pink), Mammoth (crimson), Sulphurea, Offenbach (golden), Geisha (very large, orange colour) and Delice (rose pink) being all distinct and good.

Messrs. H. J. Jones, Lewisham, filled a complete table with the best Michaelmas Daisies, of which Henry Adams (good blue), White Climax, Climax (very good), Magnet (mauve, very beautiful), Mrs. S. T. Wright (heliotrope), Ryecroft Pink, Colwall Pink, Avalanche (white), R. E. Hay (rose mauve) and Mrs. Heneage (good blue) were among the most important.

Mr. J. T. West, Brentwood, had an excellent group, of which Warneford (pure white) and Hornet (crimson Collarette) were very good.

Messrs. Stuart Low and Co., Enfield, showed some excellent Roses and Carnations. Lyon Rose, Juliet, Mme. Edouard Herriot and Ophelia were very fine. Constance (yellow) was particularly good.

Messrs. J. Cheal and Sons, Crawley, displayed a table of cut shrubs with Crabs and other things. They also arranged a good assortment of Dahlias, of which Loveliness (pink) and Mrs. F. Paton (crimson) were very fine. A large collection of Collarette and single varieties was staged.

Messrs. Carter Page and Co., London Wall, also staged a superb gathering of Dahlias, several sections of the flower being superbly represented.

Messrs. Piper, Barnes, had an exhibit of shrubs, Clematises and Vines in variety.

Messrs. W. Paul and Sons, Waltham Cross, were responsible for a great gathering of Roses. Juliet, Joseph Hill, Queen of Fragrance, Florence Haswell Veitch, Ophelia, Rayon d'Or, Waltham Scarlet and Marcella were particularly good.

Messrs. T. S. Ware, Limited, Feltham, contributed a representative gathering of Dahlias, Madonna, a fine pure white decorative sort, receiving an award of merit.

THE GARDEN.

No. 2290.—VOL. LXXIX.

OCTOBER 9, 1915.

NOTES OF THE WEEK.

The Loss of M. Pernet-Ducher's Two Sons.—English rosarians will learn with regret that the famous French rosarian, M. Pernet-Ducher of Lyons, has had the misfortune to lose both his sons in the great war. They were both killed on active service in the field.

Propagating Shrubs.—Many of the evergreen and deciduous shrubs can be propagated at this season, some of them in an open border if it is sheltered from the north and east. Laurels and Yuccas, among others, can be increased in this way. More tender shrubs like Buddleias and Garrya elliptica should be protected with glass. All can be rooted in separately, or if a shallow trench is taken out and sprinkled with sand, they can be rooted in much quicker.

An Autumn Bee Flower: Sedum spectabile.—This grand perennial is flowering here in profusion, and on bright days the large pink heads are nearly covered with bees. Readers on the lookout for a late bee plant should have this in their garden. As most gardeners are aware, this is by many termed a rock plant, and does very well in the rock garden, but I like to have large roots of it in the perennial border, close to the front, or have it in a prominent position in the "rock border." It can be planted at any time during the autumn or in March, and is propagated in the spring by division of the roots, each small root developing into a fine plant before the year is out.—E. T. ELLIS, *Westwood, Ecclesall, Sheffield.*

An Autumn-Flowering Primula.—*Primula capitata* is still looking very attractive in many gardens. Its flowers of rich purple, thickly coated with a white farina on the outer and lower parts, are borne in dense, globular heads from 6 inches to 9 inches above the mealy covered leaves. It cannot be considered a good perennial, and as it is readily raised from seed, it is best treated as a biennial, raising fresh plants every year, so as not to be without this fine late-flowering species. It requires a cool, shady position in good soil, and to be well watered in dry weather. A native of the Himalayas, it was introduced in 1850 from India by the late Sir Joseph Hooker. *Primula sphærocephala*, a Chinese species, introduced in 1908, is very similar to it, and may be nothing more than a Chinese form of *P. capitata*.

The Californian Poppy.—*Romneya Coulteri* has flowered unusually well, both in the middle of summer and again in the third week of September, when one might count as many as fifty blossoms on one big bush. The second burst of bloom came at the same time as that of some bushes of the common pink China Rose that are near them. The combined effect is singularly charming, and is still further enhanced by the silvery grey background provided by the Elm weather-boarding of the barn at the back, while the top of the picture is completed by a mass of closely clustered bloom of *Solanum jasminoides*.—G. JEKYLL.



SEDUM SPECTABILE, A USEFUL BEE FLOWER, IN THE PERENNIAL BORDER.

The New Laboratory at Wisley.—This building, which has been in course of erection for about twelve months, is making steady progress and nearing completion. When finished it will be fitted with electric light and well equipped with the necessary appliances for botanical and other scientific investigation. From an architectural point of view the building is very imposing and a worthy addition to the Royal Horticultural Society's Gardens. The society has been fortunate in procuring sufficient old tiles from Colchester to roof the whole building, while the walls are

built with large bricks from Holland. The Dutch bricks and weather-worn tiles give to the building an atmosphere of age that is quite in keeping with the beautiful gardens and surrounding Pine trees. Following the Surrey architecture, the tall chimneys are more or less circular, making the whole a large and imposing building. Early this year it was hoped that the laboratory would have been completed in time to be opened this month, but this has proved impracticable owing to the scarcity of labour.

The Double Pink-Flowered Bramble.—In bloom from July until September, the double pink-flowered Bramble, *Rubus ulmifolius flore pleno*, or *R. fruticosus flore roseo pleno* as it is known in nurseries, is a handsome plant for the shrubbery border and pleasure grounds; or if the old wood is removed each year after flowering in autumn, it is quite a good subject for arches, pillars and training to a wire or lattice screen. So thickly are the narrow pink petals arranged that they resemble a double Daisy, hence the name *bellidiflorus* by which it is sometimes known. It is increased by cuttings inserted in autumn in a cold frame, or on a border outside. A companion plant is the double white Bramble, *Rubus thyrsoides flore pleno*.

A New Chinese Leadwort.—In *Ceratostigma willmottianum* we have a very valuable autumn and early winter flowering plant for the outdoor garden. *Ceratostigma plumbaginoides*, or *Plumbago Larpentæ*, does not grow more than about 18 inches high, while the subject of this note in Miss Willmott's garden at Warley Place forms a spreading shrub some 5 feet high. Other distinguishing features are the brownish-red autumnal tint of the older plant, its more hairy foliage, and the flowers, which are a shade darker blue. The flowering season extending from August until November, a sheltered position is desirable. This may be on a south or west shrubbery border, and at the foot of a warm wall or fence. A well-drained sandy loam forms a suitable soil, to which should be added some flaky leaf-mould. It is increased by cuttings inserted in a heated propagating-frame in summer, also by division in spring, and layering.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

A Remarkable Lily.—I enclose a photograph of a fine *Lilium auratum*. This Lily was 9 feet 6 inches high, the stem was 7 inches in circumference about a foot above the base, and had seventy-six flowers and buds on it. The bulb has been planted about three years. These Lilies do well here, being planted on the top of a bank slightly below the edge of the lawn, where they get full sunshine, while the edge of the lawn shields the roots from the direct rays of the sun.—W. HUTCHINSON, *Whitegate, Bebington, Cheshire.*

Cotoneaster Simonsii as a Wall Plant.—In South Hants this *Cotoneaster* succeeds admirably as a wall plant and in almost any site, especially an eastern position, where it produces a full crop of richly coloured berries. On a northern site it grows equally well, but does not berry so freely. In Colwyn Bay, North Wales, I recently saw it covering quite densely a high wall, and by the aid of constant close clipping the plant was a dense mass of leafage, but there was no promise of berries.—SWANMORE.

Rose Diseases.—If, instead of notes on Rose mildew (page 445, September 11) Mr. Edward Mawley had detailed a method of combating black spot, I for one would have showered blessings upon him. This terrible disease has for the past two seasons played havoc in my garden, and its appearance is directly traceable to Juliet. From this variety it passed to *Beauté de Lyon* and others of the type, afterwards attacking numerous Hybrid Teas. Neither Seride nor Bordeaux mixture has had the least effect, and I am now contemplating lifting every bush, dipping them in strong fruit wash, and heavily liming the ground before replanting.—T. A. W.

Vegetable Marrows.—The interesting note by E. T. Ellis, page 469 of your issue dated September 25, on the proper storage of these for winter use is most opportune; but no mention is made of another important use to which these dried specimens may be put, which in these days of economy should be welcomed by all prudent housewives, namely, that cut up into slices they are most useful for mixing with Apples, where pies are in great request and these fruits scarce or costly to buy; while others, having to provide for large families, find, if a fair portion of a cut Marrow is added to the steak, it makes a little of the latter go a very long way.—F. R. CASTLE.

Apple Blenheim Orange.—On page 458, issue September 18, you allude to the reputation of Blenheim Orange as a shy cropper until the trees are twenty years old. At one time I was under this impression, but have quite changed my opinion since treating the trees in a different manner to the orthodox method of close pruning them when young. By allowing an extension of the main branches and summer pruning these as shoots are formed, with a view to the early maturation of growth, I have no trouble now to obtain fruit. On dwarf trees six years grafted I annually obtain heavy crops of highly coloured fruit.—E. M.

Wanted: A Remedy for Club in Cabbage.—Can any of your readers kindly tell me of a preventive of club in the Cabbage tribe? If so, I and many more will be ever grateful. I tried the well-known recipe of gas-lime without its having any beneficial effect. On my telling this to one who is recognised as a highly scientific authority

in the horticultural world, he advised me to use quicklime, so quicklime was used with a lavish hand, but still the club is as bad as ever. Strangely enough, on the ground which was the most limed, the club is worse than on that lightly treated, and I am thinking that lime and club hit it off well together. I have heard that salt is a preventive of club. It would be interesting to hear the result from anyone who has experimented with it. I should say this is a light, sandy soil, and the roots of my Cabbage plants were dipped in soot and lime water when planted. In view of the great need for every vegetable which can be grown at the present crisis, I was anxious to get a good supply for the next few months, and the result has been a great disappointment. Whoever can find a preventive or remedy for this scourge will do a national service.—B., *Weybridge.*

The Willow Gentian (*Gentiana asclepiadea*).—This beautiful plant is one of the never-failing



LILIAM AURATUM WITH SEVENTY-SIX FLOWERS IN A READER'S GARDEN.

joys of September. Now that I have it in fair quantity at the edges of the wide grass walks in the wood, it is delightful to notice the variety of the flowers, both in shape, colour and marking. What I take to be the typical form, from its being the most frequent, has a narrow funnel-shaped corolla, with the ends of the five sharply pointed lobes diverging, but scarcely recurved, and the colour is a deep violet-blue. But in many cases the lower part of the flower is so much swollen that the whole bloom has a true bell shape, and instead of the normal width of about three-eighths of an inch, it may measure as much as five-eighths at the swollen part and $1\frac{1}{2}$ inches across the mouth, and may have the sharply pointed tips of the lobes handsomely recurved. Some of the largest flowers are of a very beautiful pale blue colour, a grey-blue inside with the faintest tinge of green, while the outside has the same grey-blue, slightly suffused with the tenderest lilac. Looking into the throat of the flower, there is always, more or less visible, a marking of a double stripe of white, the two stripes converging to a point a little way

within the point of the lobe. In some cases the white marking is so broad and showy that it gives the flower a quite distinct character. The white marking in the plants that have pale blue colouring is of special refinement. The flowers commonly twelve to sixteen in number, stand up in pairs at every upper joint of the stem, where there are also a pair of Willow-like leaves, set laterally; the stems grow bending over, after the manner of Solomon's Seal, but in a lighter and more graceful way. The lobes of the corolla are normally five in number, but sometimes only four, while in the case of some of the larger flowers there are six. Probably these charming varieties have been observed at Wisley, where this handsome Gentian grows so freely.—G. JEKYLL. [Colour variations in these charming flowers have occurred at Wisley, also a beautiful white form, but the variation in the shape of the flowers has apparently not been observed. This Gentian loves shelter and shade; it succeeds in some localities and fails in others.—ED.]

AUTUMN.

AUTUMN laying here and there
A fiery finger on the leaves.

Calm is the morn without a sound
Calm as to suit a calmer grief;
And only thro' the faded leaf
The Chestnut pattering to the ground.

The seasons bring the flowers again
And bring the firstlings of the flock.

I can but trust that good shall fall,
At last—far off—at last, to all,
And every winter change to spring.

M. C. S.

Changing the Botanical Names of Plants.

Even though we may be as unwilling as is "H. P." (issue October 2, page 480) to accept new names for old favourites, a little reflection must surely convince us that an old name is not necessarily a correct name, and that the ends of science are not furthered by a "patriotism" which retains incorrect names merely because they have been given by "English botanists." I do not claim to be a botanist, but the attempt to discover the correct names of some garden plants soon showed me that, unless there is to be endless confusion, the naming of plants must follow certain rules, one of which is that the correct name of any plant is that which was first given to it. "H. P." with what appears to be insular prejudice, is presumably prepared to let the same plant have a different botanical name in every country in Europe. Again, if he had ever worked through a large genus, he would have realised that some of its first-discovered members were in the early days either wrongly grouped or not grouped at all, and his unwillingness to accept new names would seem to imply that, however great advances may have been made in our knowledge of any genus or group of genera, the members are not to be arranged in the groups to which they naturally and obviously belong, because it may then become necessary to change some old-established names. Even botanists do not change names merely for the sake of the change, and if "H. P." objects to the "awkward-sounding" generic name of *Matteuccia*, will he kindly suggest twenty euphonious titles that he would like to see conferred on the next new genera that botanists may be obliged to establish?—W. R. DYKES, *Charterhouse, Godalming.*

Storing Late Apples.—I was much interested in reading your reference to the storing of late Apples in "Notes of the Week," issue September 25. Expensively built fruit rooms are not necessary, though much appreciated where available. There are, in many establishments, sheds suitable for the storing of Apples, as they are fairly even as regards temperature throughout the winter and early spring months. Apples keep remarkably well in low sheds facing north, especially if a thick layer of straw or Fern is placed on the roof. Again, these fruits will retain their freshness if stored in heaps under a thick covering of tree leaves. I have had them in a very sound condition, so stored, as late as the following May. A naturally dry place is selected, having a north or north-west aspect; some dry, clean straw is laid down, on which the fruits are carefully heaped like Potatoes; more straw is put on, and then a layer of leaves about 2 feet deep; deeper if the leaves are plentiful.—G. G.

Solanum ciliatum.—Visitors to the Royal Horticultural Society's meetings will remember the fine imported fruiting branches of this plant shown last winter. I am aware that it is not a new thing, but it was new to me. Someone sent me a few seeds, and I am giving them a trial. I was told that it did not ripen its fruits outside in our climate, so I have kept the plants under glass, in pots, in a moderate temperature, and have given them painstaking cultivation and good fare. From the way the plant behaves here, I fear that we shall never get the decorative value out of it in this country that one had hoped. The Tomato-shaped berries, about the size of a Walnut and rich orange red in colour, are produced very scantily, sadly lacking in the freedom of fruiting which the sprays shown by Mr. Felton exhibited. The foliage is so prickly as to be almost pugnacious; there are sharp spines projecting at every point where one touches the plant, both on leaves and stem. My treatment and cultivation may be wrong, and it would be interesting to hear a report from anyone else who has tried it, but my present opinion is that *Solanum ciliatum* will be of little use grown here.—F. HERBERT CHAPMAN, *Rye*.

Buddleia Colvillei.—I lately saw this *Buddleia* flourishing in North Wales. In the gardens of Penrhyn Castle, on a wall facing south-east, a plant covers a space 15 feet high and fully 10 feet wide, where it annually flowers quite freely. In the gardens at Bodnant Hall, North Wales, I also saw it growing equally well, if not quite such a large plant. The natural semi-drooping habit of growth fits it well to grow as a wall plant, covering the space quite well. *Buddleia Colvillei* is a native of Sikkim, and one of the most striking members of this popular genus.—E. M.

Thalictrum dipterocarpum.—This will, I think, prove a decided acquisition to our Meadow Rue family. It delights in an open and sunny position, where it will then make a fine plant, throwing up an abundance of flowers on stems from 4 feet to 6 feet in height. The colour is purplish, with a tone of rose in it, so that, when planting it, the colour of its neighbours should be carefully considered, for a purplish rose tone does not blend nicely with some harsh ones. I think the most effective planting of it I have yet seen was in a well-chosen spot in front of some shrubs.—H. TURNER, *Serlby, Bawtry*.

Eucalyptus globulus and E. Gunnii.—I have had some considerable experience of *Eucalyptus globulus* and *E. Gunnii*, and quite agree with the editorial footnote, page 468, issue September 25, as to the hardness of the latter. A fine specimen of *E. globulus* grew in the gardens at Eaglehurst, near Southampton. It was fifteen years old, possessed a stem about 5 inches across, and had attained a height of 20 feet. Then came an



THE NOBLE PAMPAS GRASS WITH CEDAR OF LEBANON IN THE BACKGROUND.

exceptionally severe winter, the stem was frozen through, and, when thawed, split badly several feet up, and the tree soon died. I planted one in a garden in Bournemouth; it attained a height of 16 feet, and was then killed in the same way, though I took the precaution to wrap hay-bands round the stem to a height of 4 feet or so. *Eucalyptus Gunnii* was then planted, grew almost as rapidly as *E. globulus*, and soon made a fine specimen. It is very much hardier than the latter variety.—SOLENT.

FORTHCOMING EVENTS.

October 11.—Royal Botanic Society of London. Lecture by Professor W. B. Bottomley on "The Story of Soil Inoculation," 4 p.m. Fellows' Rooms Royal Botanic Gardens, Regent's Park, N.W.

October 12.—Royal Horticultural Society's Exhibition of Flowers, Fruits, &c., 1 p.m. to 5 p.m. Royal Horticultural Hall, Vincent Square, Westminster.

UTILISING THE FRUITS OF THE JAPANESE QUINCE.

THE Japanese Quince (*Pyrus japonica*) is this year producing exceptionally large crops of its aromatic fruits, and many readers have enquired if the crop can be used in any way.

We have referred the question to our esteemed correspondent "Anne Amateur," who replies that they may be preserved or made into jelly in the same way as Quinces by following this Kentish farmhouse recipe. Ingredients: Quinces, sugar and water. Method: Pare and quarter the fruits, boil in enough water to keep the pieces whole. When they are tender, take them out, and to each pound of Quinces add 1lb. of white sugar. Let them stand with the sugar on until the next day, when the syrup will be as light and clear as amber. Put them in the pan and let them boil twenty minutes; they never get hard.

For Quince jelly the water they were boiled in may be used to make a jelly of the parings. Add 1lb. of white sugar to each pint of juice and boil for half an hour.

Another pleasant way of utilising them is to convert them into jelly by the following simple process. Peel, core and slice the fruit into small pieces. Boil for two and a half hours in water sufficient to float the fruit. Strain the liquid through a jelly bag, and to every pint of liquid add a pound of sugar (good quality lump). Boil again until the whole is a thick jelly. Place in small pots, cover the jelly with a piece of white paper soaked in brandy as a means of preventing mould

growing on the jelly, and securely fasten down with air-tight paper.

THE SILVERY PAMPAS GRASS.

(*GYNERIUM ARGENTEUM*, SYN. *CORTADERIA ARGENTEA*.)

FROM the South American plains comes the noble Pampas Grass, which is hardy in most parts of England. The grand tufts of foliage and immense feathery blooms have long been well known and largely used in our gardens and outer grounds. The plant is dioecious—that is to say, the male and female flowers are borne on different plants. They vary a good deal from seed, some having much more fully furnished plumes; they also vary a good deal in colour, some being of the usual warm white, while others are tinted with rose colour or faint purple. It is better, therefore, in setting up a stock to see them in bloom in the nursery, so as to make sure of having a good strain.

AUTUMNAL ROSES IN SOUTHERN SCOTLAND.

By THE REV. DAVID R. WILLIAMSON.

SOME of the most effective of the late-flowering Roses on September 27 were Mrs. Wemyss Quin (bright apricot in colour), Majestic and Lady Clanwilliam, three of the finest of recent introductions; Lady Plymouth, almost pure white in its exquisite hue, and equally floriferous, a most reliable and picturesque variety for

and Irish Fireflame, the latter two varieties lustrous single—and singular—revelations of promise unrealised when they open, and therefore assuredly more impressive when in bud. Mr. George Taylor (of Dobbie and Co., Edinburgh) was not far off the truth when he wrote to me last January strongly recommending the culture of some of the China Roses of recent origination, these being in his estimation (and now also in mine) for purely decorative purposes among the loveliest of all.

Especially beautiful here on September 27 were such glorious creations as Comtesse du Cayla, Mme.

FLOWER BORDERS AT GOODNESTONE PARK, CANTERBURY.

AT Goodnestone Park, Canterbury, the residence of Mr. H. Fitzwalter Plumpetre, may be seen herbaceous borders illustrative of what may be done in a few months. It had been a vegetable garden for some two or three hundred years, a spacious, well-walled vegetable garden, and in a charming setting, for just beyond the wall on one side runs an avenue of fine Chestnuts; on the other the red-brown roofs of the Dower House show against distant trees; at the far end the square tower of the church rises grey against the sky; while towards the house a space of lawn and bright herbaceous beds leads now to this line of loveliness, where before it led only to Cabbages and utility. The old garden is cut across its length by a second wall, the mellow colour of which was delightful even against the greens of Cauliflowers and Beans, but it cried out for something more.

So the inspiration came. Openings were made through both the end and middle walls; these, being designed by a distinguished architect, were to be flanked by pillars made of the superfluous bricks. A wide pathway of turf cut from the park was laid from end to end, the church tower closing the perspective. On either side deep borders were dug (Asparagus, Cabbages and Beans having found another home in beds made where the old paths used to run), and then followed the pleasant task of planning the colour scheme. Entering, the eye

falls upon a wide corner of grey; the pale Santolina, the silvery Cineraria maritima, the greenish grey Phlomis, all showing soft as a cloud against a glowing background of Arctotis calendulacea—one solid mass of gold—and the brilliant Tagetes. Through the first archway, and there is, as it were, a patch of summer sky: Delphiniums, Salvia patens and tall Anchusas, making a wonderful blueness that throws into relief the delicate green spears of the Lyme-grass and the white of the Cosmos beyond.

And so it passes through white and palest yellow to the deep orange of Montbretias, Helenium grandicephalum striatum, the grand Helenium Autumnale and the blaze of Red-hot Pokers; while along the other side are great crimson Hollyhocks, massed pink Gladioli and Phloxes, Phloxes pink, Phloxes like old-fashioned chintz, Phloxes of every shade of mauve, down to the dark, almost purple, Le Mahdi. And there is the purplish pink of the graceful Desmodium and the dainty blues of Gilia capitata and the annual Lupines. Scabious in many soft uncertain tints, blue Lepotosiphon androsaceus, purple velvet Gladioli, lavender-coloured Nepeta, Lobelia syphilitica—these are but some of the glories that make these herbaceous borders a "joy for ever."

And all this glow of colour, this wealth of sweetness, has been produced between the months of



HERBACEOUS BORDERS IN THEIR FIRST YEAR AT GOODNESTONE PARK.

late autumnal bloom; Mrs. Edgar Burnett, generally regarded by rosarians as an improved representative or derivative of the fragrant La France, though here at least it does not produce such a number of flowers; Florence Forrester, an enormous white variety (quite unlike Snow Queen, unless in productiveness and the dimensions of its blooms), and with a quite perceptible fragrance; and Iona Herdman, which does not take very kindly to the somewhat exposed situation of my Rose borders here in the garden of Kirk House, and is of peculiarly dwarf and trailing habit, though its flowers are invariably exquisitely beautiful. I may venture to suggest to its distinguished raiser, who is to be congratulated on the creation of so many charmingly coloured decorative Roses, that a variety of greater vigorousness of habit than this veritable gem, Iona Herdman, would be a great acquisition.

But so long as we have such a splendid possession as Mrs. Wemyss Quin, which, in addition to its luminous aspect, is a fine grower and rich in central petals (which, alas! few modern decorative varieties are), we need not complain.

Other grand Roses that have been admirable here and elsewhere of late are the almost incomparable George Dickson (which has proved much more floriferous than I anticipated, especially in autumn, and whose only limitation is its pendulous tendency), Brilliant, Mme. Edouard Herriot

Eugène Resal, Mrs. Edward Clayton and Mlle. de la Vallette.

THE WILLOW-PLATE PATTERN TREE.

THE Willow-plate Pattern Tree is botanically known as *Kœlreuteria paniculata*. It is a native of Northern China, and was named after Joseph G. Kœlreuter, 1733-1806, once Professor of Natural History at Carlsruhe. It belongs to the same Natural Order as the Horse Chestnut, and it is a tree remarkable for its picturesque and irregular habit of growth. Its long, divided leaves are handsome throughout the summer and in autumnal hue, and the tree is beautiful when in flower. There are many examples of this tree in this country, one of the best known being that at the Chelsea Physic Gardens.

The flowering season is June and July. The flowers are yellow and disposed in large terminal panicles, which add to the quaint appearance of the tree. The flowers are followed by three-lobed inflated fruits that are very conspicuous in the autumn. The Willow-plate Pattern Tree is quite hardy in this country, and thrives in any ordinary garden soil, although in a sheltered position it flowers most freely.

February and August, very much to the credit of Mr. Woodruff, the head-gardener at Goodnestone Park, aided by the only two men left to help him—the rest of the garden staff having gone to fight. Nearly all the plants were either moved from other parts of the garden or grown from seed, so that, in this time of war, no money should be spent unnecessarily; indeed, as a symbol of the difficulties and drawbacks of this time, when labour and money alike must be given to the country as a whole, stands the unfinished second opening, its rough edges waiting for their pillars until more prosperous and peaceful days.

HARDY FLOWERS IN EARLY AUTUMN.

HERE, in a Surrey garden, the herbaceous border looks brighter at the close of summer than at any other time of the year. It is an easy matter to have a garden bright with the flowers of early autumn;

there are so many from which to choose. Shades of blue and mauve take the lead in the garden now. These colours are as plentiful in autumn as yellow flowers in spring, and the quiet beauty of blue and mauve flowers is in perfect harmony with the tints of autumn foliage. Michaelmas Daisies or perennial Asters are foremost among autumnal flowers. They look well in a border to themselves, backed by tall-growing varieties like *A. Novi-Belgii niveus*, a free-flowering white variety rising over 6 feet in height; *Amethyst*, with large open blue flowers, and its counterpart in flower, *Feltham Blue*, which grows a little taller and flowers a little earlier. *A. Lil Fardell* is one of the prettiest of the rose-coloured Michaelmas Daisies, and *Beauty of Colwall* is a handsome double variety with mauve-blue flowers. Among the lower-growing Michaelmas Daisies, *A. acris* and its variety *linifolium* make bold masses of colour. The Italian Starwort (*A. Amellus*), the dainty *A. ericoides* and *A. Thompsoni* are others worthy of special attention.

Late Phloxes and Michaelmas Daisies are admirable subjects to fill the gaps left by the early flowering Delphiniums. It is not an easy matter to keep up an unbroken succession of flowers in the herbaceous border, but it is one of the chief points to aim for. I know a garden where

two months ago there was a very large group of that exquisite *Delphinium Persimmon*. It is now an equally large bare patch—quite an eyesore to the border. If only Michaelmas Daisies had been planted around with late Phloxes, such as *nana cærulea*, and the pale lavender *Arendsii Hélène* in the foreground, what a difference it would have made to the present appearance of the border! The handsome Monkshoods are fine in early autumn, particularly *Aconitum Napellus* and *A. Fischeri*. The flowers are both beautiful and interesting, but the roots

are deadly poisonous. The blue Spider-wort, *Commelina cœlestis*, flowers at this season. It is an old-fashioned plant, but comparatively little known, having flowers like those of the *Tradescantia*. It delights in a warm border and a light soil, and it is advisable to protect its fleshy roots with a covering of ashes on the approach of frost.

Scabiosa caucasica flowers well into October; it is mindful of the wild Scabious of the cornfields that flowers much earlier. It is of perennial duration on light soils, but on heavy, damp soil it is apt to die out. However, it is readily increased from seeds in spring or by division in the autumn. *Stokesia cyanea*, with Scabious-like flowers, is an excellent companion plant to the former, flowering at the same time and answering to the same treatment. *Eryngium dichotomum*, a Sea Holly with small Thistle-like leaves and spiky blue heads of flowers, also *E. tripartitum*, look particularly handsome in the autumn. Neither must we omit *Sedum spectabile*, a favourite of bees and butterflies, or the Japanese Anemone with its numerous pink and white varieties. Japanese Anemones are among the most delightful

over-manuring of herbaceous borders is one of the commonest mistakes in the flower garden and a frequent cause of disease. The Silver Sage (*Perowskia atriplicifolia*), a half-shrubby plant with distinct silver grey foliage and blue and white flowers, is most effective in autumn, and it is worthy of extended cultivation.

Meadow Saffrons or *Colchicums* are included among the choicest flowers of September or October. They are often grown in borders with other hardy flowers, but they look far better when planted among grass, and we cannot do better than follow Nature's ways by growing them in moist grassy places. A very striking picture may be made by growing *Colchicums* over, or rather through a groundwork of Mossy Saxifrages. *Veronica subsessilis*, *Campanula rapunculoides*, *Catananche cærulea*, *Platycodon grandiflorum*, *Cichorium Intybus*, and, in shady places, the Willow Gentian (*Gentiana asclepiadea*) are a few blue-flowering subjects that will continue to bloom for many weeks to come.

Lobelia Tupa is a comparatively little known hardy plant now coming into flower. It hails from Chili, but in Southern gardens, at least, it



AUTUMN FLOWERS AT GOODNESTONE PARK, CANTERBURY

of all the early autumn flowers, and they look particularly effective when grown in bold groups by the water-side. (See illustration, page 497.) No garden, either large or small, should be without them. The variety of the Japanese Windflower known as *hupehensis* is uncommon and extremely beautiful; the flowers are of varying shades of pink. *Salvia nemorosa* is an old-world flower seen at its best in autumn, and the fine-leaved *Salvia uliginosa* is likewise good at this season. Plants of the Sage family, like *Salvias* and *Nepetas*, flower far better in poor soils than in rich. The

stands our winters well. It is, however, advisable to cover the roots with ashes or other loose material on the approach of frost. The flowers are of a bright brick red, and the plant grows to a height of about 5 feet. It is a really first-rate autumn flower, especially for a warm corner. It is also known as *Tupa Fuelli*. Dahlias for garden decoration should be selected with care. Many of the Cactus varieties that look so handsome when staged at flower shows are very disappointing in the garden. Owing to their weak stems the flowers are hidden under an uninteresting mass of

dense green leafage. The new decorative variety *Queen Mary*, a lovely pink, and the old white variety *Kaiserin Augusta Victoria* make quite a good display as border flowers. There is grace and elegance about the new and single *Cosmea*-flowered Dahlias, of which *Crawley Star* is perhaps the best known. There is certainly a future for this new departure, but the fanciful *Pæony*-flowered and *Collarette* Dahlias are of little or no use for garden purposes. There are many other plants that flower in autumn, such as *Achillea Ptarmica*, *The Pearl*, *Pentstemons*, *Cone-flowers* or *Rudbeckias*, *Verbena bonariensis*, with *Stachys*-like flowers borne well into October; *Hyacinthus candicans* (*Galtonia*), *Helenium autumnale magnificum*, and *Hunneemannia fumariæfolia*, a yellow *Poppy* suitable for a sheltered corner.

NEW AND RARE PLANTS.

AWARDS OF MERIT.

Ceanothus George Simon.—A beautiful form with pyramidal spikes of pale pink flowers.

shaped, after the *N. Bowdeni* type, and are coloured rich rose with white base. A plant of considerable ornament and merit.

These were exhibited by Messrs. Barr and Sons, Covent Garden, W.C.

NEW FRUIT.

Apple Edwin Beckett.—This fine culinary Apple, the cooking qualities of which were tested by the fruit and vegetable committee, originated among a batch of seedlings at Elstree. It is a handsome fruit of large size. Shown by Mr. E. Beckett, gardener to the Hon. Vicary Gibbs, Elstree, Herts.

The foregoing novelties were exhibited before the Royal Horticultural Society on September 28 last, when the awards were made.

NEW DAHLIAS.

Madonna (Decorative).—A gloriously pure white of magnificent proportions. From Messrs. T. S. Ware, Limited, Feltham, Middlesex.

Erin (Cactus).—The colour is deep orange in a remarkably fine flower. From Messrs. Burrell and Co., Cambridge.

These five were shown by Mr. J. T. West, Brentwood, Essex.

The foregoing Dahlias, having been adjudicated upon by a joint committee of the Royal Horticultural Society and the National Dahlia Society, carry the award of merit of the former and the first-class certificate of the latter.

EUCALYPTS FOR ENGLISH GARDENS.

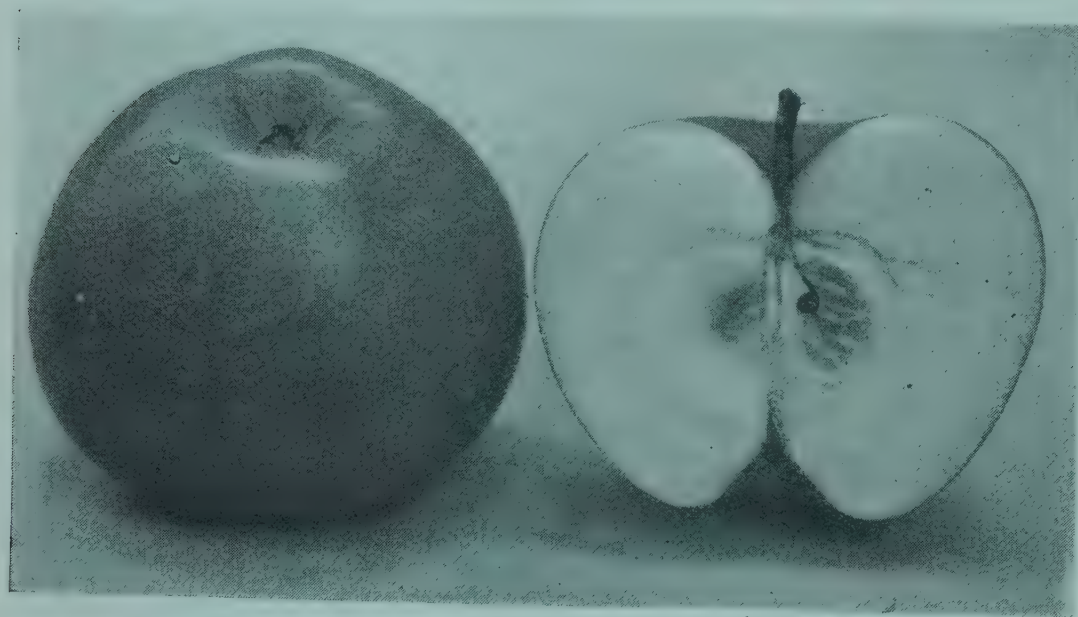
By E. A. BOWLES, M.A., F.L.S.

THE pretty drawing and interesting note on *Eucalyptus Gunnii* in your issue of September 25, page 468, will, I hope, induce many to try some of the hardier Gums in sheltered nooks in their gardens. There are several species that are well worth a trial, and with anything like luck and a little care will certainly give a great deal of interest and pleasure for some years, even though they may not survive long enough to become giants like their forbears in their native wilds. There is an unfortunate and, I believe, undeserved prejudice against the family. One of our greatest gardeners has often told me he does not care for them and will not grow them, as he considers them dull and dingy compared with our native trees with their summer greens and autumn tints.

I wish he could have seen some groups and isolated specimens as I did a few days ago in a beautiful Sussex garden. One, *E. viminalis*, 20 feet high, rising out of a group of the hardy *Palm*, *Trachycarpus excelsus*, and backed by Oaks and Scots Pine, looked at a first glance like a column of blue wood smoke among the trees. Again, the species that does so well at Brightlingsea, and is nowadays generally considered to be *E. Gunnii*, had been planted to form a belt between two large groupings of such tropical-looking plants as *Drimys Winteri*, *Musa Basjoo*, *Phormium*, Palms and Bamboos, and the wonderful contrasts of colour and shape of these fine plants were greatly enhanced by the steely blue sheen of the Gums. Here in Middlesex I have been admiring to-day in my own garden the gleams of blue foliage of *E. cordata*, *pulverulenta* and *Gunnii* against the dark background of Yews and Ilex, and the Oaks and Limes of the park, now in their sombre early autumn tone of green.

I have struggled with many kinds here for about fifteen years, and although twice during that period a severe winter, or a sudden snap of cold following a mild spell, has robbed me of many of my best specimens, I have never been left totally bereft of Eucalypts. Even supposing the average life of a young tree is five years, it would be worth while planting them. They grow so quickly that in their second year they do much to show how blue they can look. *E. cordata* has ripened seed here before being overtaken by disaster, and thus left me the means of replacing it.

Seeds should be sown in April in the open ground, and the young plants moved into permanent quarters in the following spring. Greater hardiness is ensured if the plants have never been coddled, and, if never potted up, there is no fear of the main root becoming coiled as nearly always happens in a pot specimen, and is then one of the most frequent causes of trouble to the tree in after life.



THE NEW CULINARY APPLE EDWIN BECKETT.

Quite a useful addition. From Messrs. J. Cheal and Sons, Crawley.

Escallonia montevidense.—A very charming shrub with shining, entire leaves and terminal trusses of pure white flowers. Exhibited by Miss Willmott, V.M.H. Warley Place, Essex.

Aster King Albert.—A useful addition to the best of the midseason Michaelmas Daisies. The colour is lilac blue of a good tone. The flowers are nearly fully double and of large size. Height 2½ feet. Shown by Mr. Ernest Ballard, Colwall, Hereford.

Abutilon Triumph.—The largest-flowered form we have seen. The colour is rose of a pleasing shade. From Mr. Charles Turner, Slough.

Rose Hadley (Hybrid Tea).—This good addition to forcing and bedding Roses hails from America, where its forcing qualities have been fully tested. It is of rich crimson red tone and pleasingly fragrant. Shown by Messrs. Stuart Low and Co., Enfield.

Nerine Vivid.—The colour is rich scarlet, the form of the flower approximating to that of *N. cornucopia*.

Nerine Rosebud.—The most distinct thing seen for a long time. The flowers are trumpet

Carron (Collarette).—Guard florets brilliant scarlet, inner florets flaked scarlet and yellow. A striking novelty. From Messrs. Dobbie and Co., Edinburgh.

Sceptre (Cactus).—The colour is rosy purple in a well-built flower.

Bacchante (Decorative).—Rich crimson and white; very effective.

Garland (Collarette).—This is of rich scarlet tone, the inner florets soft yellow.

Ursa Major (Cactus).—A fancy variety, coloured yellow with red markings.

Searchlight (Cactus).—Handsome yellow self.

These were exhibited by Messrs. James Stredwick and Sons, St. Leonards-on-Sea.

Saucy (Collarette).—The whole flower is coloured sulphur yellow.

Landmark (Collarette).—Yellow with crimson markings.

Diamond (Decorative Single).—Intense Old Crimson Clove Carnation colour, with rich golden disc. Very handsome.

The Boy (Miniature Cactus).—This is of greenish white colour.

The Girl (Miniature Cactus).—The dominating colour tone is pink with a suffusion of red.

The Brightlingsea form of *E. Gunnii* appears to be as hardy as any, but is not quite so blue when it takes on mature foliage as in youth. *E. pulverulenta* is the bluest that is sufficiently hardy to stand our ordinary winters here. *E. cordata* comes next in blueness, and has more than once survived when *pulverulenta* has been killed. Our shallow soil and the underlying coarse gravel are not suitable for deep rooting, and I find most of my Gums blow over when they reach a height of anything over 10 feet, unless staked. Lately I have tried cutting out the heavy tops in late autumn, of those too tall for staking, and I believe if this can be done for a year or two until the main stem has become strong and thick, many of them will finally stand without support.

than any of these, except perhaps the beautiful *viminalis*, and certainly in its mature form, with drooping, sickle-shaped leaves of a dark greyish green, is rather dark in colour effect, and a curious contrast to the bright blue-grey of its juvenile form. *Cordata* and *pulverulenta* are the only two I know that retain the large, opposite and rounded leaves of their youth into middle age, and are as blue when 20 feet high as they were as yearlings.

Treseder of Truro used to send out a good form as *E. Beauchampiana*, but I have not seen it lately. One grew into a fine specimen here, about 15 feet high, and when the leaves took on the mature shape and hung vertically they still retained their blueness. Alas! it was blown over

JAPANESE WINDFLOWERS.

NOTHING can be said too favourable in the praise of these beautiful and elegant plants. As a supplement to the notes on page 471, issue September 25, may I make these remarks. The plants, varying somewhat according to variety, are rapidly increased by means of root cuttings, and do not always succeed when pieces are detached from clumps growing in borders. I find the white varieties difficult to grow well, no doubt on account of the soil being light and pervious. The largest of the whites is *Géant des Blanches*, which lived



AN AUTUMN SCENE AT KEW. JAPANESE WINDFLOWERS BY THE LAKESIDE.

It seems rather cruel to cut three or four feet off the top of a straight-grown tree, but it is better than allowing it to become loosened in the soil or blown over with every rough gale.

The portions cut off are wonderfully graceful in large vases in the house, and last fresh in water for several weeks, so this sort of adversity has its sweet usages. Seed of many varieties can generally be procured from the firm of MM. Vilmorin, Paris, and I can recommend the trial of any of the following species: Hardest.—*E. Gunnii*, *coccifera*, *Stuartiana*, *cordata* and *urnigera*. Bluest.—*E. pulverulenta*, *cordata*, *viminalis* and *coccifera*. Deep green with leathery leaves.—*E. obliqua*, *coriacea* and *robusta*. Pale green.—*E. resinifera*. The most generally known species, *E. globulus*, is far less hardy

in a gale and so much strained at the roots that it succumbed. *E. ficifolia* is the most gorgeous of all when in flower, but is so tender that it will not stand any frost, and has been badly damaged here in an unheated house. I saw a fine pot specimen last week standing out in a formal garden, and it had borne two large heads of its great scarlet flowers. So where protection in a warm house can be afforded it for the winter, this handsome species is well worth growing.

When next we get a three weeks' spell of skating, it is most likely that there will be many gaps among my Eucalypts here; but unless the cold or a descent through thin ice does for me also, I shall certainly begin again with all the kinds I can lay my hands on.

only a short time. Whirlwind, the most decorative of this colour, also died out after a time, and so did the old white, a particularly handsome border plant. The coloured forms, on the contrary, succeed very well, and a few of them are at present conspicuous in mixed borders for their general attractiveness.

Queen Charlotte in heavy ground is a noble plant, but for effect and profusion of flowers none is so valuable as *Profusion*. It is of similar habit to *Whirlwind*, but more abundantly flowered and is one of the plants in our borders for which people are constantly asking for a "little bit." A surface dressing of compost applied during the resting season is a valuable aid to the plants, which, as is well said, are best left without disturbance. R. P. B.

NOTES ON AURICULAS.

AT this period of the year the amount of work among the Auriculas is not great, but it is, nevertheless, important. If the weather is mild and dry, the treatment given last month may continue. With the approach of the winter the supply of water should be gradually decreased, and all dead leaves must be removed directly they will readily part from the stem. Where the plants have been grown in a wooden frame, it is now advisable to remove it from

that the Auricula dislikes anything in the way of coddling.

Starting a Collection.—A collection may be started at any time, and it is always best to begin with some of the named varieties, selecting those with a robust constitution and that are sure to give a good return in the way of bloom. Elaborate and costly structures are not needed; in fact, the more modest they are, the better are the results obtained. A cold frame with the sides and ends made of brick or wood will suit Auriculas

admirably, and there are few gardens of any size that do not possess at least one of these useful frames. The lights must be well glazed, or drip will be very troublesome just at a time when it is essential for the plants to be kept tolerably dry. For Auriculas a deep frame is not needed, and

each example should be fairly near to the glass. So the back rows of plants may be raised upon inverted flower-pots or on planks which rest upon bricks. The aspect of the frame should be north

during the greater part of the year, and for this reason Auriculas will thrive where other subjects will not grow.

A Selection of Varieties.—There are various sections, but to me the most beautiful are the alpines, and my dozen for a beginner would be as follows: Argus (a beautiful form which was figured in the coloured plate of *THE GARDEN* for July 4, 1914), Blue Bell, Duke of York, Evelyn Phillips, Firefly, Miss Ashton, Mrs. Martin Smith, Rosy Morn, Teviotdale, The Bride, Thetis and Uranie. The whole of the above could, no doubt, be purchased for 18s. The show or edged varieties are a little more costly, because they do not produce offsets so freely. An interesting dozen would include Buttercup, Mikado, Mrs. Phillips, Mrs. Potts, Ruby and Victoria, all selfs; Henry Wilson, Love Bird and Mrs. Henwood, green-edged; George Rudd, grey-edged; and Acme and Heather Bell, white-edged. In compiling the above list an eye has been kept on the cost, as it is useless to give an amateur a list of plants perhaps not yet in commerce or prohibitive in price.

T. W. BRISCOE.

STORING CANNAS AND DAHLIAS.

ALTHOUGH Dahlias are still flowering beautifully, it is well to look ahead and consider the question of storing the tubers. When properly stored the roots and tubers of Cannas and Dahlias are available in spring, when, without much

trouble, they can be increased and serve a very useful purpose in the flower garden again. Frost must be kept from the roots, and it will not do to pin one's faith too exclusively on straw. The latter material is certainly valuable for protection against frost, but, unless plenty of it is used, frosty winds will blow through it. This I know from experience. A fine collection of roots was stored in the centre of a floor of a loft; straw was placed on them, but it was not proof against the frosty wind blowing in under the door. These little details are sometimes overlooked. Quite dry sand is the best material in which to pack the roots. The crowns of each tuber must be covered, then there will be no danger of fungus attacking the upper parts of the tubers.

SHAMROCK.

CLEMATIS FLAMMULA IN THE FLOWER BORDER.

THIS good autumn climber is usually grown against a wall or fence, or in some rough, bushy place, but it has another very desirable use in the carefully arranged flower border. Just now (the last week of September), in a double border specially designed for this month's beauty, it comes over and among the earlier Michaelmas Daisies in great foaming waves, disappears for a moment behind a group of deep purple Daisies, and reappears beyond. At one point where it was desirable to break the general height of the border, there is a little tree of a silvery Willow, pollarded at about 6 feet high; it is cut back every year, and the summer growths are thinned and restrained. A Clematis Flammula is trained into it to run through and tumble out again among the Daisies below, where it first meets the fine tall Aster puniceus. Its general effect is then taken up by Aster paniculatus, with satisfactory pictorial effect. In another main flower border, where towards one end is a rather large group of Delphiniums, a Clematis Flammula is planted behind them. When the bloom of the Delphiniums is over, the stems are cut just below the seed-pods, and the growing Clematis is trained over the cut stems, which give just the right support. G. JERYLL.

TWO CHARMING LILIES.

BY SIR HERBERT MAXWELL, BART.

Lilium Henryi is one of the good things which we owe to Dr. Augustine Henry's exploration of Central China, where he discovered it at the close of the last century. It has proved to be thoroughly adapted to vigorous and permanent life in British gardens, where, indeed, it sometimes attains a stature which it has never been seen to reach in a wild state. The blossoms, which are freely borne when the plant is liberally treated, closely resemble those of the Japanese *L. speciosum*, except in their colour, which is a soft orange tending to apricot. The only fault of Henry's Lily is its sprawling habit, which should be met by planting it among shrubs that may give it support. It ranks among the Lilies easiest to cultivate. To obtain the best results, the bulbs should be planted 10 inches or 1 foot deep in rather strong loam with leaf-mould, adding some ground lime to correct acidity, and giving a good mulch of well-decayed manure and leaf-mould in early spring.

Parry's Lily (Lilium Parryi), on the other hand, must be classed as one of the most difficult subjects the British amateur has to deal with.

LILIUM HENRYI.

(Colour soft orange.)

the north side of any buildings to the south or west, where the extra light will benefit the plants and prepare them for the winter.

The Auricula as an Amateur's Plant.—Many plants, especially the Auricula, have been considerably improved by men who are generally spoken of as belonging to the working classes, especially the Lancashire weavers, and Ben Simonite of Sheffield, who was a working cutler. These facts should encourage others to follow in their footsteps, for there is no finality with such plants where careful cross-fertilisation is carried out and due regard is paid to selection. Auriculas as a whole do not require a vast amount of labour, but the amateur or fancier must take a keen interest in his plants; then the necessary attention becomes a pleasure. Where such interest and enthusiasm exist, the various requirements are soon discovered and carried out at the proper time. Without this love for his flowers little progress will be made, but it must be understood

Hitherto, I cannot lay claim to any success in growing it; but the superlative grace and commanding stature which distinguish this Lily when it is coaxed into displaying these qualities are an ample reward for any amount of pains and care. A native of Southern California, it is shy of our inclement winters, resenting hard frost equally with excessive wet. The finest examples I have seen are in Mr. A. Grove's garden near Henley-on-Thames, where, year after year, this Lily swings out a profusion of golden bells on slender, but erect, stems 8 feet high or more. It is not in every garden that Mr. Grove's prescription for cultivating it is easy to carry out, for it combines rapid drainage with a moist subsoil—conditions that may hardly be secured without subterranean irrigation. The bulbs should be nursed in pots for the first season after importation; then those that manifest healthy growth may be planted about 8 inches deep in a soil prepared of rather sandy loam, sharp grit or small gravel, leaf-mould and charcoal. If the garden is on chalk, that must be completely removed before the compost for the bulbs is laid down, and this must be done without check to perfect drainage. In cold districts some surface protection against frost must be provided.

FILBERT NUTS.

THERE are many plots in gardens which may be devoted to the cultivation of Nuts. Besides yielding nice crops in four years out of five, the plants form a good screen and shelter for other kinds of plants which would suffer from full exposure. A medium rich, well-drained loam is the most suitable; a soil in which water lies for a long time the most unsuitable. Nut bushes will grow freely on sloping ground, and on dry banks, too, if the loam is of a good holding nature.

Propagation is best carried out by layering and the insertion of cuttings through the autumn and winter months. Select low-growing shoots, cut away a small portion of the bark and wood from the under side, and then peg them firmly in the prepared soil, which should be of a gritty nature. Young, straight shoots should be selected for cuttings. They must be about eighteen inches long, and if stems free from suckers are required, all the buds must be picked out from the portion of stem buried in the ground. Insert the cuttings in a cool border 6 inches deep, and surround the base of each with coarse sand. Cut off the tips of each cutting, make the soil firm around the base, and tread it down well after each frost. All the pruning needed is the removal of cross-pieces and any central wood that would cause overcrowding. The necessary pruning should be done about the end of February, not in the autumn, so that there will be no danger of cutting away the Nut-bearing wood.

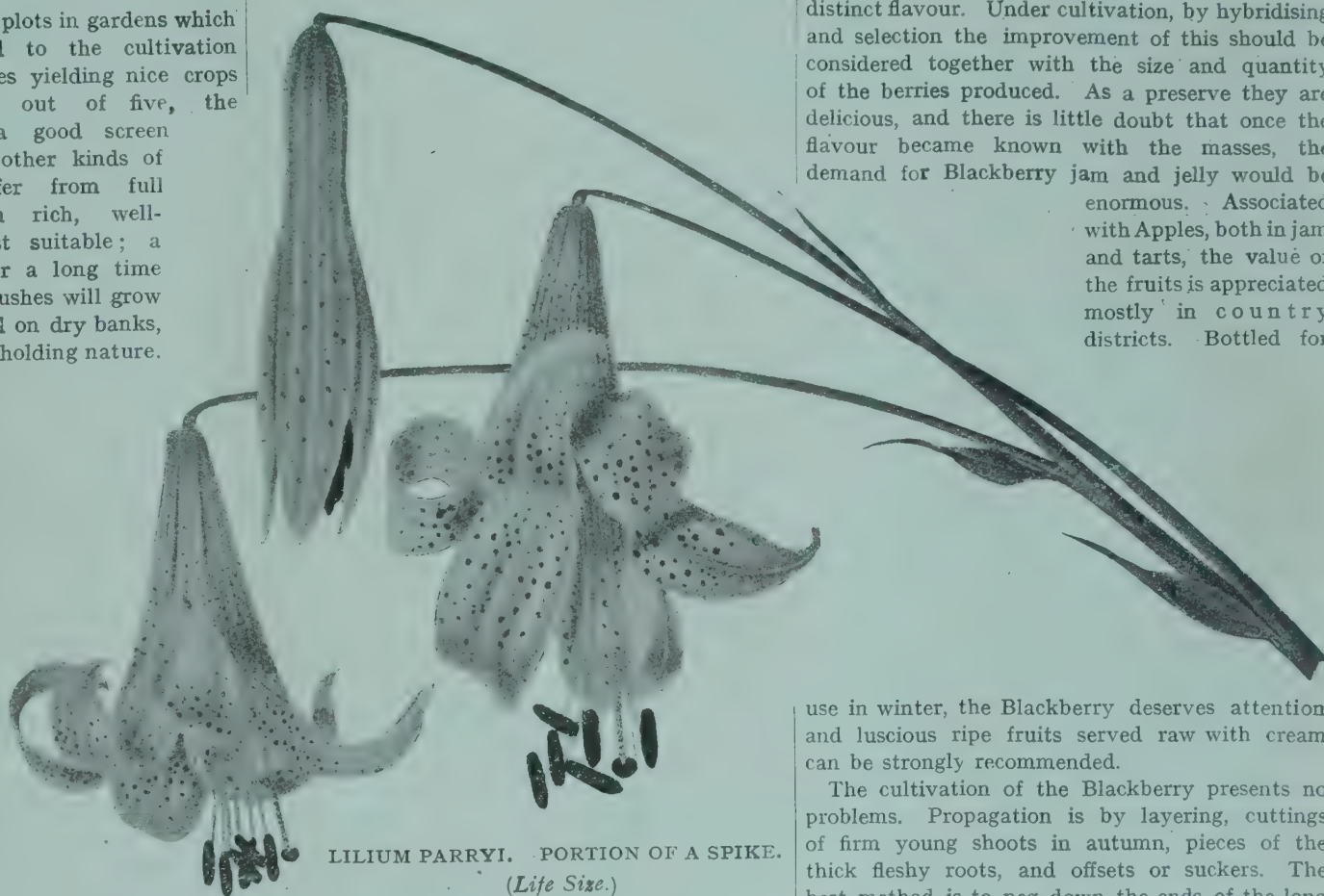
G. G.

THE CULTIVATION OF THE BLACKBERRY.

FROM time to time attention has been drawn to the great value of the Blackberry as an edible fruit. Efforts have been made to induce growers of fruit, particularly for preserves, to cultivate it extensively, but presumably because it is a British wild fruit, growing in quantity in the hedgerow and copse, its extensive cultivation is not thought worth while. At the present time, when so much is being talked and written about the cultivation of more ground, including the utilisation of waste land, the merits of the Blackberry should receive consideration. In giving a first-class certificate to Blackberry Himalayan Giant at a recent meeting of the Royal Horticultural Society, the members of the fruit committee, it is evident, realise the possibilities of this particular variety and the Blackberries in general. Sent to Wisley for trial in 1912 by Messrs. Laxton, Himalayan Giant was given an award of merit last year, which, after an extended trial, has been increased to a first-class certificate. Whether it has anything to do with the Himalayas, as the name suggests, is very doubtful. Some of the British Blackberries, if not identical, very closely resemble

Some years ago several American varieties were introduced, and these still find a place in fruit catalogues, familiar names being Wilson Junior, laciniatus, Lawton, Kittatiny, Parsley-leaved and Mammoth. Given favourable positions and attention, these have succeeded in some gardens; but remembering that such good fruits and quantities of them are produced wild, there appears to be ample scope for the hybridist, using the best of our wild species or subspecies, to produce sorts with large fruits of excellent flavour, which will grow and fruit freely in most positions—banks, hedges and on fences, sunny, but not well suited for other fruits. In the present necessity or desirability to make the fullest use of every possible home product, railway banks have been suggested as offering in many places excellent positions for the cultivation of the Blackberry. Several enquiries have been made during the last few years by one or two experimental stations respecting the best fruiting British Blackberries. In addition to *Rubus pubescens*, already mentioned, *R. dasyphyllus*, *R. villicaulis*, *R. thyrsiger*, *R. Selmeri*, *R. radula*, *R. pulcherrimus* and *R. nemoralis* produce good fruits in quantity, and appear worthy of attention from the hybridist.

An important point to remember is that in autumn, when the Blackberry is in season, all other small fruits are practically over. Already the Blackberry is well known for its rich and distinct flavour. Under cultivation, by hybridising and selection the improvement of this should be considered together with the size and quantity of the berries produced. As a preserve they are delicious, and there is little doubt that once the flavour became known with the masses, the demand for Blackberry jam and jelly would be enormous. Associated with Apples, both in jam and tarts, the value of the fruits is appreciated mostly in country districts. Bottled for



LILIUM PARRYI. PORTION OF A SPIKE.
(Life Size.)

it, however, yet the fact that in the "Handbook of the British Rubi," by the Rev. W. M. Rogers, one hundred and three species and numerous varieties are described suggests how difficult the British Rubi are to determine. Judged by the specimens growing at Kew, the Himalayan Giant Blackberry is very near to, if not identical with, the pillars labelled *R. pubescens*. This has the distinct, very thick stem and young growths 12 feet to 15 feet or more in length, with large panicles of big purple-black fruits.

use in winter, the Blackberry deserves attention and luscious ripe fruits served raw with cream can be strongly recommended.

The cultivation of the Blackberry presents no problems. Propagation is by layering, cuttings of firm young shoots in autumn, pieces of the thick fleshy roots, and offsets or suckers. The best method is to peg down the ends of the long young shoots in late summer; these soon root and may be severed and transplanted in spring. As with the Raspberry, the stems are biennial, and should be cut off at the ground level after fruiting and the young shoots tied in. Wires strained to strong uprights provide the best means of support for Blackberries when grown in quantity. They will thrive in most soils and positions, which must be sunny. The deep cultivation and manuring of the ground is necessary if the most is expected in the size and quantity of the fruits.

A. O.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Cucumbers.—Close attention to cultural details is absolutely essential to keep the plants in a good fruit-bearing condition during late autumn and winter. The temperature of the house must be kept as equable as possible. A minimum temperature of 70° will suit the plants till the cold weather sets in, when 5° lower will be better. The roots must be well supplied with moisture, but not excessively so. Syringe the foliage on fine days with rain water, and damp the paths and walls in the house two or three times a day. Should the "spot" disease attack the plants, syringing must be discontinued. Give the roots a little fresh material when they appear on the surface. Plenty of light is essential to healthy growth, therefore the glass must be kept quite clean both inside and out. Admit air on all favourable occasions.

Muscat Grapes.—The bunches should now be perfectly ripe, and in order to prevent the berries from shrivelling, the temperature must be maintained as equable as possible. A little heat must be kept in the pipes continuously, except on very bright days. The roots must not be kept too dry, and when water is necessary choose a fine day for affording it. A little clean straw placed over the border will prevent moisture from rising. Outside borders should be protected from heavy rains.

Plants Under Glass.

Primulas.—The late batch of plants should by this date be ready for their final potting. Five-inch pots are quite large enough for ordinary purposes, but if very large specimens are desired, 6-inch pots may be used. A position near to the glass in a light structure is necessary to promote a healthy growth, and a little artificial heat must be afforded when the nights are cold. The earliest plants will now be in need of a little stimulant.

Begonia Gloire de Lorraine.—A portion of the batch of this useful winter-flowering Begonia may now be allowed to flower. The flowers of the remainder must be removed, if they are not wanted till later. Attend to the tying of the shoots regularly, or the plants will grow out of shape. It is a great mistake to grow this Begonia in too high a temperature. This not only makes the plants grow weak and spindly, but the colour of the flowers suffers also. Admit air on all favourable occasions and keep the atmosphere drier than formerly.

The Flower Garden.

Dahlias.—As soon as the frost has destroyed the flowers, the plants may be lifted and placed in a shed to dry, previous to storing them away for the winter. See that each root is carefully and securely labelled. A dry shed is the best place in which to store them, but they must be made secure against severe frost.

Transplanting Trees and Shrubs.—Deciduous trees and shrubs may be transplanted now, providing the ground is in suitable condition. Lift them with as large a ball of roots as possible, and plant them without delay. To lift very large specimens successfully, the roots should be partially lifted the previous year to encourage the formation of fibres.

Violas.—These are most useful subjects for summer bedding, as they will flower profusely the whole of the season, providing they can be kept well supplied with moisture. If cuttings are not already inserted, no time must be lost in doing so. A shallow frame is all that is necessary to shelter them during the winter. Insert the cuttings thickly in a sandy compost.

Herbaceous Borders.—This is the most suitable time to overhaul borders of hardy flowers, as the characteristics and height of the various species can best be determined before they are cut down. If it has been decided to replant the whole of the border, an effort should be made to trench the ground, and plenty of well-decomposed farmyard manure should be dug into it. All the plants must be carefully labelled, and those which will require a little protection during very severe frost must be noted.

The Hardy Fruit Garden.

Wall Trees.—Materials must be got together for the replanting of all kinds of fruit trees on walls, so that there shall be no delay when conditions are favourable for this work to proceed. Fresh loam, wood-ashes and lime rubble are all that is necessary when the work of lifting and transplanting begins. As much of this important work should be done every season as time and labour will allow, and if it can be done before the turn of the year, so much the better.

The Kitchen Garden.

Seakale.—Some of the lower leaves may be removed to facilitate the ripening of the crowns. Towards the end of the month a few crowns may be lifted and placed in a shed for a week or two, preparatory to forcing them. If this vegetable is required in November, retarded crowns must be employed.

Asparagus.—When this is ripe enough, cut it down and clear the beds of weeds and rubbish. The beds should then be top-dressed with well-decomposed manure. It is also a good practice to sprinkle the beds with artificial manure for the autumn rains to wash down to the roots.

Potatoes.—Disease is likely to be prevalent among the main crop of Potatoes, especially on heavy land. Where time will allow, the tubers which were placed in their winter quarters should be overhauled, removing any which show the slightest sign of disease. Lime sprinkled among the tubers will be beneficial.

Runner Beans.—When frost is imminent, a portion of this crop may be protected with tiffany or some similar material. By this means the supply of this valuable vegetable may be prolonged till the end of the month.

Materials for Forcing.—Attention must now be given to the collection of materials for forcing early vegetables. Here we build large hot-beds of leaves and stable litter, on which are placed rough wooden frames, for growing all kinds of vegetables in the spring.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

Fruit Under Glass.

Orchard-House.—Where there is permanent trees, every help should be given to thoroughly ripen the wood, now that all the fruit has been removed. The borders, however, must not suffer from want of water, especially in the case of stone fruit. Ventilation must be ample, and when the vacant spaces are used for housing plants, such as Chrysanthemums at this season, care should be taken that little or no water is spilt on the borders and pathways.

Early Vinery.—If the wood is sufficiently ripe and matured, the Vines must now be pruned if they are to be started during December, as six weeks should elapse between pruning and closing up the vinery for starting. After pruning, give the glass and woodwork a thorough cleaning down with plenty of strong soapy water, washing the glass laps well out with the full force of a hose. A safe and reliable dressing for the Vine rods is Gishurst Compound. Where bug is present, the crevices may be filled with this material after the rods have been washed with it in liquid form. This operation over, all the loose surface soil should be scraped off and the surface given a very slight loosening, not endangering any of the surface roots; then apply a top-dressing of good loam to which some reliable Vine manure has been added.

The Hardy Fruit Garden.

Apples, Plums and most other fruit trees can now be successfully transplanted. Where it is possible to do this work in the present month, a decided gain is obtained, a freer growth resulting earlier in the following season than if the planting was delayed till later in the winter.

The Kitchen Garden.

Broccoli.—In very wet and cold districts there is generally some trouble in wintering this vegetable. The most common cause of failure is growing it on ground too rich, causing a soft growth, which quickly succumbs to frost. The plants should now be lifted with as much soil adhering to the roots as possible; then, if a trench is taken out, the plants can be laid in with their heads facing north. It is very important that as much of the stem as possible is covered with soil, as it is generally at the neck where the plants are injured by frost.

Purple Sprouting Broccoli.—Unlike most of the other Broccolis, this is perfectly hardy; but if it is to succeed properly, any surrounding vegetables, such as Peas or Beans, must be cleared off to allow it full exposure to sun and air.

Cucumbers.—The plants which are expected to bear freely during winter should not be allowed to develop many fruits at present. Only a few should be allowed to form; then there are better prospects of more being produced as the plants are allowed to become established. Syringe freely in fine weather to discourage red spider, which seems to always abound where much pipe heat is present. A little stimulant may be applied to keep the plants a healthy colour.

Spinach.—Further thin out this by removing entire plants here and there where they are thickest. This can be done when Spinach is required for use in the kitchen. The remaining plants, by getting more exposure, will withstand the winter better.

Plants Under Glass.

Roses.—Most of the plants having finished their growth, encouragement should be given to thoroughly ripen the wood. Where a house is devoted to climbing Roses, any needless wood should be cut out to admit all the air and light possible. A drier atmosphere should now exist, unless there is any planting to be done, in which case syringing the foliage will help the plants to recover from the check of removal. This is also a suitable time to make an extension to an existing Rose border indoors.

Calanthes.—The flower-spikes on most varieties are now developing, while the foliage is maturing. Slightly drier conditions are necessary than was the case when the bulbs were forming, but this should not be overdone. Water must be applied with discretion until all the foliage is ripe.

Schizanthus which was sown during September must now be pricked off, putting three or four plants round the sides of 3½-inch pots. Keep them close for a few days until they have recovered from the check, then continue to grow coolly to induce a sturdy habit.

Euphorbias.—Both the *jacquiniæflora* and *pulcherrima* varieties should be given stimulants to assist in making a strong growth, which will ultimately develop large bracts. Being plants which succeed best in a restricted root run, they must be watered with every care if the lower leaves are to be retained.

The Flower Garden.

Dahlias should not be left out in too severe frost, as they are easily injured. The stems should be cut to within a foot of the tubers. Stand upside down in an open shed until they are dry enough for storing.

Herbaceous Border.—Many of the summer-flowering subjects are ripe enough to be cut over, but this should not be done prematurely, otherwise next season's growth will not be so fine. Many Asters will continue blooming for some weeks to come, should the weather remain open. Where Gladioli or annuals have been included in the border for effect, the bulbs and plants should be lifted as soon as they have done flowering, to help in maintaining a tidy and trim border.

Propagation.—All propagation by cuttings should now be brought to a finish if there has been a delay in securing cuttings. As many subjects can be started in heat during early spring, and then increased under better conditions, further increasing of stock should be deferred until then.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

COLOUR CHARTS.

A REPLY TO THE "REPLY FROM AMERICA."

IN her article in THE GARDEN of August 28, Miss Mary Youngs assumes an attitude of pugnacity that I am sure is not justified by anything I said in mine of last March and April. If she has so far misconstrued my remarks on those occasions as to interpret them as being intentionally antagonistic to any effort to standardise colours universally, I am sorry, but after carefully reading my article again, I cannot understand why she should have done so.

In the first place I referred to the substitution of Ridgway's Chart by the Royal Horticultural Society for the older "Répertoire des Couleurs" merely to prove that what was wanted was an authoritative pronouncement by a competent body of experts as to which was the best chart for general use. My contention was, and still is, that the mere fact that such a society, having sold to its members a certain number of the "Répertoire," and then adopting another for its descriptions, is likely to create the utmost confusion of ideas as to which is the better colour standard of the two. Even though it may logically be assumed from the sequence of events that Ridgway's Chart is considered the best, the adoption of one follows so closely on the sale of the other that it is more than likely to create in the public mind a feeling that it is useless to rely on any standard being finally adopted while one is renounced so lightly, after being introduced with such a fanfare of trumpets.

Miss Youngs' "common sense" advances as an argument in favour of Ridgway's Chart that it differs almost entirely in *nomenclature* from the "Répertoire des Couleurs." What on earth is the advantage of this? Giving a colour another name surely does not make it easier to create a standard. My "common sense" tells me that the more names it gets, the greater the confusion is likely to be as to what is really meant by any name. One would have thought that the simplest method would be to adopt existing names wherever possible, and so avoid the confusion that is likely to arise from the realisation that what was yesterday "eosine pink" has to-day become something else.

"There are fewer colours in Ridgway's Chart," says Miss Youngs. I have already pointed out that this is a doubtful advantage. "Inasmuch as in most cases a floral example has been given of each" in the "Répertoire," it would at least seem that the number is necessary, otherwise by what standard are these "examples" to be described? I am not by any means alone in my opinion that there are still many desirable tones missing, even where such a vast number are given.

I am pleased to learn that some infallible method of colour combination has been discovered that does not depend on the eye, although, as colour seems to me to be so essentially a matter for the eye, I am at a loss to understand how it can be so.

When it comes to the question of the "colour blind" or "colour dull," as Miss Youngs chooses to call them, my remarks were intended to point out that this condition of affairs is a great deal more prevalent than is generally supposed. She suggests that it can be ignored. But you cannot ignore it, because it is so prevalent, due possibly

to the fact that there is no colour education given to the general student in the same way that musical education is given. To-day most people are taught the difference between A, B and C in the musical scale; very few of us ever think of the difference between "eosine pink" and any other shade until the necessity arises for "matching," and then we find ourselves "colour dull."

If the "details of the bright or cloudy days, different soils, the difference in hue of the same variety of flower at different flowering seasons, &c.," are so "fussy," why do our artists prefer the "strong north light" and our photographers carefully test the actinic rays on every occasion before exposure, particularly on floral subjects? Surely it is due to the fact that they realise the immense difference the variations of light make on colour. Moreover, although the "few good garden colorists" could undoubtedly determine the standard colour of a flower, "matching up as accurately as possible in a clear light, not full sunlight," what happens to the poor bewildered user of the description when the effort is made to visualise the colour of the flower so described in "full sunlight" or any other?

I fully agree that a description like "eosine pink, mass effect a little paler," would be more likely to sell a plant than the sort of prescription of numbers and letters such as I described (with the intention of deprecating, not advocating its use); but what colour does "eosine pink" convey to the average mind, or the possessor of some chart other than Ridgway's?

I quite agree with Miss Youngs that the assertion of her American dealer, that "you cannot have a standard of nomenclature," is incorrect. You can have such a standard, but, like all other attempts at idealism, you have first to convince the remainder of the community that *your* standard is the right one, or at least the best obtainable. Now, let us assume that it has been indisputably proved that Ridgway's is the best; what is the next step? To bring the published descriptions of flowers into line with it. I pointed out last March some of the difficulties of this, and to none of these difficulties does Miss Youngs offer any solution.

One remark in the article throws a lurid light on the happy position of the dealers in America, as compared with those on this side. I am sure the fact that "the dealers could easily afford eight dollars" as compared with the private purchaser's four dollars each is something not dreamt of in the dealer's philosophy here, where some importance is attached to the words "trade terms." With reference to the firm who "advertise in their catalogues that they have in their office a copy of the Royal Horticultural Society's Chart, which is the Royal Horticultural Society's Chart?" and if it is the "Répertoire des Couleurs," of what use is it to Miss Youngs, who apparently swears by another? Moreover, diligent search has failed to convince me that the catalogue descriptions of that firm are any more reliable than others. I know several other firms who have a copy of the same chart, and it is not always in the office, but is sometimes in the nursery assisting in the comparison and revision of descriptions.

Of course, in pointing out the discrepancies between various descriptions as given in catalogues I was endorsing a plea for a standard of colour nomenclature. But why "confessions," Miss Youngs? I know of no reason for confessing. I made a plain statement of things as they are, hoping some effort would be made to overcome them. We adopted the "Répertoire" without

realising how difficult it would be to make it of any real use. The question is now: Will it be wise to scatter broadcast another, without any attempt to meet the difficulties I have summarised, and with no reasonable assurance that Ridgway's Chart spells finality? What the "dealers" require is some surety that any reform they may undertake will be worth the effort. What those of us who spend our time in designing gardens and the planting arrangements for them desire is a dictionary of flowering plants with a consistent and reliable description of colour, according to any known standard.

Colchester.

GEORGE DILLISTONE.

ANSWERS
TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

VIOLET LEAVES (H. W. T.).—The violet coloration on the under side of the Violet leaves is nothing to fear; the colour is characteristic of certain varieties under some conditions of growth. There is a little red spider present, which should be kept down by spraying now and then with water.

PÆONIES FROM SEED (Four Oaks).—Cut the capsules or seed-pods when signs of bursting are first noticed, and lay them out in a dry place on a sheet of paper. At the end of a month, when all the seeds will be free, sow them in a shallow drill of prepared soil in the open, covering them about half an inch deep. If you possess a greenhouse, the seeds might be sown in pans, and remain in them till ready for transplanting to a nursery bed next August or September. If of good quality, the seeds will probably vegetate during the spring of 1916.

INCREASING GYPSOPHILA PANICULATA (W. S.).—If you refer to the typical kind, raising it from seeds sown between now and the end of the year would yield the greatest return, as for a few pence a hundred or two may be raised. The plant, owing to the often contracted neck of the rootstock, is difficult—sometimes impossible—of increase by division in the ordinary way, but is increased by means of heel cuttings secured in spring and inserted in sandy soil in a cold frame, and by root cuttings inserted from November to January inclusive. The latter consist of inch-long pieces, and should be inserted in pots or pans and given greenhouse treatment. It is work, however, better suited to the commercial gardener, and, generally speaking, seedling raising will, for you, be found the better way. In the young state the plant is a slow grower.

TULIPS AND ANEMONES (F. P.).—Without knowledge of the quality of the bulbs of the Tulips and the time they were planted, both of which would have an important bearing on the point, we should pronounce against the fairly stiff soil as a predisposing cause. Then, in not a few districts, exceptional and prolonged drought was experienced last spring—in our own case the beds of Darwin Tulips had to be repeatedly soaked with water; and, further, disease was rife in certain varieties, some of which, despite large size and apparent soundness when planted, never grew at all. In the case of partly diseased bulbs, few, if any, root fibres would be formed, and in such case the bulbs, drawing no support from the soil, would exhaust themselves by their flowering. Generally, therefore, we incline to the view that the bulbs were not absolutely free from disease when planted, and, producing fewer root fibres than usual, their diminished size followed as a matter of course. Our sympathies are with you, inasmuch as we had to discard some hundreds this year for similar reasons, bulbs, too, that at planting-time looked sound enough. In respect to soil, you might with advantage add much sand to it to modify the stiffness, and plant as early as possible. Where manure is employed, let it be well decayed, and dig it in some inches below the bulbs.

TREES AND SHRUBS.

BAYS NOT DOING WELL (A. H. Rydon).—Your Bays are evidently suffering from a combination of the troubles you mention. Wind, drought and lack of food material all play their part in the ill-health of the plants. They should be watered regularly and fed with manure water, bone-meal, or some other fertiliser at frequent intervals, at least once a week during the growing period and every two or three weeks during the time when they are at rest. The most likely method of improving the condition of the trees is to cut them well back in March or early April, and stand them in a light and warm glass structure where they can be syringed several times a day and the surroundings kept moist. This, with judicious feeding, ought to effect an improvement. Boxes and Yews may both be used in the way you describe, while for a position sheltered from wind the Myrtle will make a good tub plant.

COVERING WALL OF BUILDING (Ellwood Holmes).—If it is desired merely to hide the stonework from view with plants of close clinging habit, or such, at least, as would require no nailing, you had better resort to such things as Ivy in variety, *Vitis inconstans* and *Euonymus radicans variegata*, all of which are close growing and self supporting. There are, of course, numerous flowering climbers, but these would require nailing and training from time to time. If, as we understand it, a simple screen for the wall only is required, we should suggest the *Vitis* for the south side, and Ivy in one or two sorts for the northern exposure. By planting a number of young plants well, a screen would be formed from the base of the building. If we have not met your requirements, please do not hesitate to write us again on the matter, with, if possible, fuller particulars.

TRAILING SHRUBS FOR WALL (E. A. C.).—We fear the near proximity of the Laurel hedge, the dryness of the position, and the narrowness of the border are opposed to much success in the shrub line, the more serviceable of which you appear already to have in use on the opposite side of the drive. Cannot you repeat, with certain modifications, what already exists on the other side? Anything opposed to it would be incongruous. Three good plants would be *Cotoneaster microphylla*, *Iberis sempervirens garxiana* (a fine trailing Candytuft), and *Clematis montana*. These are the most likely to be in agreement with what already exists, though, of course, you might plant other sorts of Rock Roses. The plants would be assisted to greater progress if a trench were dug out the whole length of the hedge and the root fibres of the Laurels cut close back.

ROSE GARDEN.

ROSE SHOOTS FOR INSPECTION (H. E. R.).—There is no disease evident on the Rose shoots sent. They are dead, but the cause of death must have operated in the lower part of the bush.

FRUIT GARDEN.

APPLE TREE DISEASED (C. L. A.).—The Apple tree is attacked by the woolly aphid. A forcible spraying with paraffin emulsion, or painting the affected parts with methylated spirit, would be the best thing to do, and it should be done at once, as there are few worse pests of Apples than this.

PEARS NOT JUICY OR SWEET (Subscriber).—There must be something radically wrong with their culture; perhaps they were gathered too soon. If it is so, this would account for it, or perhaps they are growing in soil which is too poor and dry. If the trees are not too old, lift and replant in a border of good turfy loam, mulching the surface soil over their roots in summer with well-decomposed manure, 4 inches deep. This will prevent the evaporation of moisture and encourage the growth of surface roots and nourish them. Water the trees through the manure freely in dry weather.

SEASON IN WHICH VARIOUS APPLES ARE RIPE (E. M. H.).—Court of Wick, valuable dessert Apple, in use from November to February; Yorkshire Greening, cooking Apple, in use from November to January; Bess Pool, a valuable Apple for cooking or dessert, in use from Christmas to March; Northern Greening, cooking Apple, in use from Christmas to April; Cockle (or Nutmeg) Pippin, dessert Apple, in use from January to April; Miller's Seedling, not known, probably a local name. If you send us a fruit we may be able to identify it. The Pear is Broom Park, an excellent dessert variety, ripe in January.

MISCELLANEOUS.

WANTED: A SUBSTITUTE FOR KAINIT (Miss Holmes).—There is no substitute for kainit, except burnt wood and plant ashes; but most heavy soils contain a large proportion of potash, which can be rendered available by dressings of fresh air-slaked quicklime.

NAME OF PLANT.—Mrs. A. H.—*Senecio tanguticus*.

NAMES OF FRUIT.—Lady Franklin.—1, Cellini; 2, Mank's Codlin; 3, Malster; 4, Bismarck; 5, Stamford Pippin; 6, Hawthornden; 7, Doyenné du Comice; 8, Beurré Diel.—H. S.—1, Clapp's Favourite; 2, Doyenné Boussoch; 3, Tower of Glamis; 4, Worcester Pearmain.—F. N., Glos.—1, Princess; 2, Ecklinville; 3, Coe's Golden Drop.—E. H. C. T.—1, Marie Louise d'Uccle; 2, Marie Louise; 3, Louise Bonne of Jersey; 4, Winter Nelis.—A. M. C., Devon.—Flat Apple, The Queen; conical Apple, Lane's Prince Albert.—F. E. W.—1, Newton Wonder; 2, Lord Suffolk; 3, Cellini; 4, Stamford Pippin; 5, Brandy Apple.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY'S EXHIBITION OF BRITISH-GROWN FRUIT.

THE annual exhibition of British-grown fruits was held on October 5 and 6, and from many points of view must be regarded a distinct success. In certain directions, more particularly the nurserymen's open division, it is doubtful whether finer produce has ever been staged, the leading class, in which a table space 30 feet by 6 feet was allowed, bringing out five superb collections. These, indeed, were one of the chief attractions of the show. Hardly less meritorious were many of the fruits in the succeeding classes, and generally throughout the show high excellence prevailed. The pot-grown fruit from Hereford was very fine, brilliant colouring being quite a feature of the many Apples shown. Apples Charles Ross and Rev. W. Wilks, from Langley, astonished everybody by their size and good colour. Ripe dessert fruit in collections, and Grapes also, we have seen more finely staged generally, and in both of these a falling off in quality was noticeable. The greater falling off, however, was in the single dish classes, which hitherto have been a strong feature. All the same, the wealth and excellence of the exhibits reflected the highest credit on the cultivators concerned.

DIVISION I.

Fruit Grown Under Glass or Otherwise.

For a collection of nine dishes of ripe dessert fruit three exhibitors staged, the first prize going to the Duke of Newcastle, Clumber, Worksop (gardener, Mr. S. Barker), for an excellent lot. There were Grapes Muscat of Alexandria and Madresfield Court, Dymond Peach, Humboldt Nectarine, Hero of Lockinge Melon, Marguerite Marillat and Doyenné du Comice Pears (the former of superb colour and size), with Wealthy and Cox's Orange Pippin Apples. Second, Lord Somers, Eastnor Castle, Ledbury, whose Black Alicante Grapes were excellent. Apple Charles Ross was a particularly fine dish, and Pitmaston Duchess Pears handsome and well coloured.

For a collection of six dishes of ripe dessert fruits, C. A. Cain, Esq., Welwyn (gardener, Mr. T. Pakeman), was first, his best dishes being Peaches Sea Eagle and Lady Palmerston, both of which were superb. Pear Doyenné Boussoch, Melon Ringleader, and Madresfield Court and Muscat of Alexandria Grapes were also included. Second, Major St. Maur, Newton Abbot.

For six distinct varieties of Grapes, two bunches of each, only two competitors staged, the first prize going to the Duke of Newcastle, Clumber, Worksop (gardener, Mr. S. Barker), for an admirable lot. His centre was a giant bunch of Gros Guillaume, the finest in the whole show. Others of great merit were Gros Colman, Muscat of Alexandria, Mrs. Pearson, Alicante and Madresfield Court. Lord Hillingdon, Sevenoaks, Kent (gardener, Mr. J. Shelton), was second, Black Alicante and Muscat of Alexandria being his finer bunches.

For four varieties of Grapes, two bunches of each, only one exhibited, C. A. Cain, Esq., Welwyn, being awarded first prize for fruits not of the highest quality. The best examples were Muscat of Alexandria and Madresfield Court, both of which were well coloured.

For two bunches of Black Hamburg Grapes, Lord Hillingdon, Sevenoaks, Kent (gardener, Mr. J. Shelton), was first with well-coloured fruits. Second, Basil E. Richardson, Esq., Ware, whose bunches were larger, but lacking the finer finish of the first-prize lot.

Two bunches of Grape Mrs. Pince: First, The Duke of Newcastle, Clumber, Worksop (gardener, Mr. S. Barker), who set up a couple of admirable bunches. Second, G. Miller, Esq., Radlett, with large bunches that would have been improved by more liberal thinning.

Two bunches of Grape Alicante: Eight competitors staged, the first prize going to Mrs. W. Raphael, Castle Hill, Englefield Green (gardener, Mr. H. Brown), with excellent, well-finished bunches. Lord Somers, Eastnor Castle (gardener, Mr. G. Mullins), was a close second, having larger bunches of somewhat smaller, less well-finished fruits.

Two bunches of Grape Madresfield Court: The Marquis of Salisbury, Hatfield House, Hatfield (gardener, Mr. H. Prime), was first with nice bunches of this excellent sort.

Two bunches of Grape Prince of Wales: Sir Walpole Greenwell, Bart., Marden Park, Woldingham (gardener, Mr. W. Lintott), was first of three exhibitors, his bunches being a very fair sample. Second, G. Mayer, Esq., Woldingham.

For two bunches of any other black Grape, the first prize was awarded to Muscat Hamburg, but no card indicated ownership. Second, Viscount Enfield, Wrotham Park, Barnet (gardener, Mr. H. Markham), whose fine bunches of Appley Towers, well berried and highly finished, merited, we thought, first prize. There were seven competitors in this class.

For two bunches of Muscat of Alexandria Grapes the first prize was awarded the Duke of Newcastle, Clumber, Worksop (gardener, Mr. S. Barker), who staged a pair of superbly coloured bunches. Second, C. A. Cain, Esq., Welwyn (gardener, Mr. T. Pakeman), who also had excellent examples, less finely coloured than in the first-named set. Seven exhibitors staged.

For two bunches of any other white Grape the first prize went to C. A. Cain, Esq., Welwyn, for Lady Hutt: Mr. S. Miller, Radlett, staging the same variety and taking second prize.

For a collection of hardy fruits, space not exceeding 12 feet by 3 feet, F. Bibby, Esq., Hardwick, Shrewsbury (gardener, Mr. J. Taylor) was first with an admirable

collection, in which Peaches, Plums and Nectarines were strong features. Peaches Late Devonian, Gladstone, Late Admirable and Alexandra Noblesse were very fine, as were also Nectarines Peach and Prince of Wales. Plums President, Monarch and Coe's Golden Drop, and Apples Peasgood's Nonsuch, James Grieve, Wealthy and Charles Ross were also of high merit. Second, Lord Somers, Eastnor Castle (gardener, Mr. G. Mullins), whose dishes of Apples ranked high. Royal Jubilee, Charles Ross, Emperor Alexander, Blenheim Orange and Gascoigne's Scarlet were very fine. Plums, Peaches, Nectarines and Morello Cherries were very fine in the front row. Third, Major Powell Cotton, Birchington (gardener, Mr. J. Cornford), who staged Figs, Plums and Peaches excellently.

For a collection of orchard-house grown fruit and trees in pots, space allowed 24 feet by 6 feet, only one competitor, The King's Acre Nurseries, Hereford, staged, the pot trees being the admiration of all. Of these, Apples Blenheim Orange, Newton Wonder, Emperor Alexander, Gascoigne's Scarlet, Cox's Pomona and King of Tompkins' County were all superb in colour and fruit. A tree of Peach Golden Eagle was well fruited, while, along the front, dishes of Apples, Pears, Plums and Peaches were freely displayed.

AFFILIATED SOCIETIES' CHALLENGE CUP.

The Colchester and District Gardeners' Association were the winners of this challenge cup, awarded for Apples and Pears. Of the Pears, Souvenir du Congrès, Doyenné du Comice and Beurré Diel were splendid; likewise the dessert Apples Cox's Orange Pippin, Ribston Pippin and James Grieve. The Ipswich and District Gardeners' Association contested this class well, and could only have been a very few points behind the winners.

DIVISION II.

Open to Nurserymen Only.

For Fruit Grown Entirely Out of Doors.

This class (space allowed 30 feet by 6 feet) was the great attraction of the show, five competitors putting up magnificent collections, no fewer than three gold medals being awarded. Messrs. H. Cannell and Sons, Eynsford, Kent, won one of these coveted honours with a grand lot of fruits, in which Apples, Pears and Plums of the highest quality were staged. Plums Belle de Septembre and Coe's Golden Drop and Apples Wellington (regarded by the judges as the finest lot ever staged), Emperor Alexander, Bramley's Seedling, Rev. W. Wilks, Coronation, Lady Sudeley (brilliant colour), Gascoigne's Scarlet, Mrs. Barron, a monster dish of Peasgood's Nonsuch, Bismarck, Potts' Seedling and Blenheim Orange were superb. Pears King Edward, Durondeau, Conference and Marguerite Marillat were grand. Nearly 200 dishes were staged, and the arrangement was admirable. Messrs. George Bunyard and Co., Maidstone, also won a gold medal for a superb lot of Apples. The Houbion (handsome colour), Charles Ross, Gascoigne's Scarlet, Allington Pippin, Norfolk Beauty, Lady Sudeley, Wealthy, Coronation, James Grieve, The Queen, Grenadier (yellow skin), and Ecklinville being the best. Of Pears, Beurré d'Avalon, Louise Bonne of Jersey, Durondeau, Conference, Doyenné Boussoch, Fondante Thirriott (very handsome) and St. Luke were all fine. Damsons and Plums were also noted. A most artistic arrangement. Mr. J. C. Allgrove, Middle Green, Langley, Slough also secured a gold medal for a grand collection, his tray of forty fruits of Rev. W. Wilks eliciting the admiration of all, some of the largest fruits weighing 26oz. Charles Ross and Peasgood's Nonsuch were set up in like fashion, their colour and form being a great attraction. Cox's Orange Pippin, Lane's Prince Albert, St. Edmund Pippin, Wealthy, Worcester Pearmain, Warner's King, King of the Pippins, Lord Derby, Blenheim Orange and James Grieve were the more imposing dishes. Of Pears, Beurré d'Anjou, Bellissime d'Hiver, Durondeau, Pitmaston Duchess, Conference, Louise Bonne of Jersey, Autumn Nelis and Duchesse d'Angoulême were the finer examples. Bullace The Langley was notable among other fruits. The arrangement was in every way excellent, the fruits of the highest quality.

Messrs. J. Cheal and Sons, the well-known firm of Lowfield Nurseries, Crawley, were awarded a silver-gilt Knightian medal for a capital display in this class. Very handsome were the large baskets of Lord Derby, Warner's King, Lane's Prince Albert and Crawley Beauty.

A silver Knightian medal was awarded to Messrs. W. Seabrook and Sons, Chelmsford. Their baskets of well-coloured Charles Ross, Cellini, The Queen, Worcester Pearmain and Duchess' Favourite were much admired.

For a collection of fruit, 20 feet by 6 feet, Mr. R. C. Notcutt, Woodbridge, led the way with a superb lot of fruits, gaining a silver-gilt Knightian medal. His best Pears were St. Luke, Beurré Alexandre Lucas' Conference, Winter Orange and Pitmaston Duchess. Of Apples The Queen, James Grieve, Potts' Seedling, Rev. W. Wilks, Peasgood's Nonsuch and Rivers' Codlin were all fine.

The Barnham Nurseries, Limited, Barnham, Sussex, showed Apples of wonderful colour, which gained for them a silver-gilt Banksian medal. Newton Wonder, Gascoigne's Scarlet, Barnack Beauty and Adam's Pearmain were specially good.

Messrs. S. Spooner and Sons, Hounslow, were awarded a silver Knightian medal for a collection of Apples comprising Lane's Prince Albert, Bismarck, Encore, Lord Derby and The Sandringham, all first-rate cooking varieties.

Mr. Charles Turner, Slough, gained a silver-gilt Banksian medal for a nice lot of fruits, of which Apples were a strong feature. Arthur Turner, Charles Ross, Warner's King, Peasgood's Nonsuch, Potts' Seedling and Royal Jubilee were the best. Of Pears, Louise Bonne of Jersey and Beurré Hardy were very handsome.

THE GARDEN.

No. 2291.—Vol. LXXIX.

OCTOBER 16, 1915.

NOTES OF THE WEEK.

Our Special Rose Number.—Few flowers, if any, give so much real enjoyment over a long period as the modern Rose, and there can be no refuge so peaceful and refreshing like unto a garden of Roses. Following our usual custom at the commencement of the Rose planting season, we shall devote a considerable portion of our next issue to special articles on Roses. Mr. Edward Mawley, V.M.H., president of the National Rose Society, has contributed a most instructive article on "Roses for Walls." Miss Ellen Willmott, V.M.H., has kindly promised to write upon "Roses in the Wild Garden." Profusely illustrated articles on "Standard and Pillar Roses," "New Species from China," "Roses for Clothing Old Trees," and "The Rose Garden of Europe" will appear, by some of the best authorities on our national flower. In addition, a coloured plate of a new single Rose will be included. The price will be one penny, as usual.

Apple Dumelow's Seedling or Wellington.—This late-keeping Apple, in season from November till March, is a great favourite in the kitchen, as the flesh becomes nearly transparent and it has a refreshing, acid flavour when cooked. Its market repute is very high, and it is claimed to be the best of all Apples for cooking. It is best grown as a bush on the Paradise stock. However, on cold soils it is not a success, as it is subject to canker, while Newton Wonder and Bramley's Seedling are preferable for orchard culture. It is extensively grown in Kent, and the basket of fruits of this variety in the gold medal collection shown by Messrs. H. Cannell and Sons, Eynsford, Kent, at the recent exhibition of British-grown fruit was regarded by the judges as the finest lot ever staged.

Choice Shrubs Fruiting.—At a recent meeting of the scientific committee of the Royal Horticultural Society, Mr. E. A. Bowles showed fruits of *Davidia involucrata* from Mr. Christie's garden at Framlingham Pigot, Norfolk. The fruits were collected from a plant growing in the open air, but it is not certain that the seeds were properly formed. At the same meeting Mr. C. D. Langworthy of Claygate sent fruits of *Fremontia californica* from his Claygate garden, where it is growing on a clay soil.

Bulbs in Grass.—As there are a number of small bulbous plants that look very beautiful

when naturalised in the grass, we would remind our readers that now is a good time to plant them. Chionodoxas, Scillas, Muscaris, Crocuses and Snowdrops are a few kinds which can be purchased cheaply and will, during the early spring months, brighten up such parts of the garden as would otherwise be uninteresting.

Album of a Famous Rosary.—The eminent rosarian, M. Jules Gravereaux of L'Hay, has just published an album of his famous rosary at that

Scotland, for £100 in name of loss caused by the death of a horse alleged to be due to eating leaves from a Yew. The action was raised by a farmer whose fields adjoin the churchyard, a Yew in which overhung one of them. The case has now been settled by defenders paying a sum of £60 and expenses.

The Quince Crop.—The common Quince is fast swelling up a good crop of fruits in this district, and unless very unkind weather visits us during October they should be of fine quality, the warm September having suited them admirably. The fruit is but little sought for as dessert, although quite recently a reverend gentleman told me it was simply grand; it was so distinct. The latter point I readily admitted, but otherwise we were not long in unison over its dessert qualities. However, as a preserve, either in the form of jelly or marmalade, it is to be welcomed, and to those who care for its peculiar flavour, just a "seasoning" among Apples used in pastry gives quite an added briskness.—H. TURNER, *Bawtry*.

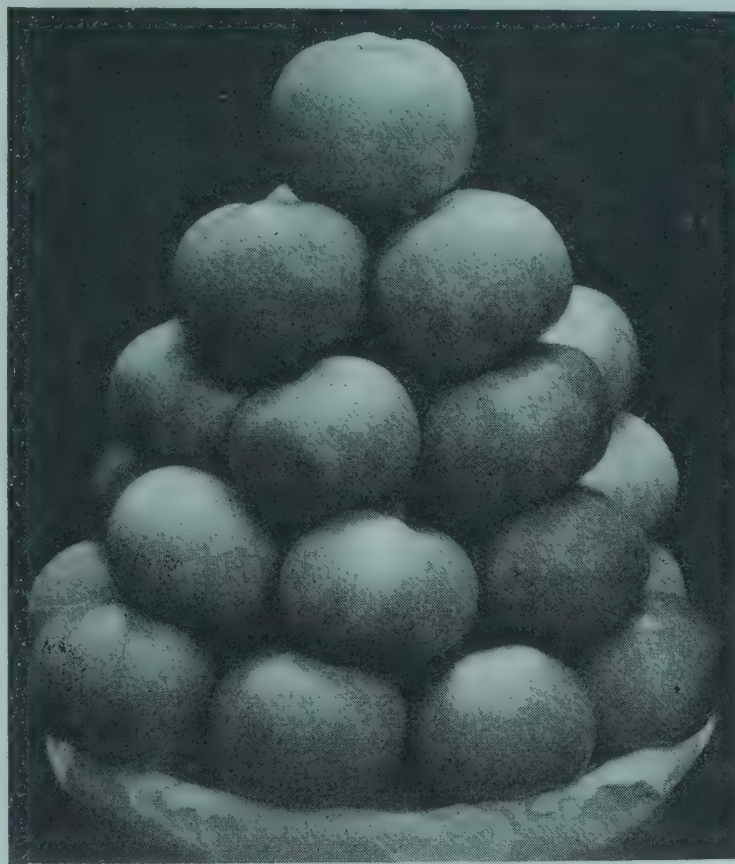
A Chinese Rose with Attractive Fruits.—*Rosa sertata* is a new species from China of outstanding merit. Forming a large bush some 4 feet or 5 feet high, the long, elegant growths, clothed with glaucous or grey green, attract attention. In June the warm rose coloured flowers are pleasing, these being followed in autumn by deep red fruits. As they hang on the bushes at the present time, *Rosa sertata*, by reason of its graceful habit, soon attracts attention. This Rose was introduced by Mr. E. H. Wilson in 1907 from Central China, and is figured in the *Botanical Magazine*, t. 8473.

Geum Mrs. Bradshaw.—Once again this variety has proved its worth in the flower border, and it must be admitted that it is quite one of the best introductions of late years among hardy perennials. A decided point in its

place. An account of it from his own pen appeared in last year's "Rose Annual," issued by the National Rose Society. The receipts from the sale of this album will go towards the monument to be erected in honour of the young men of L'Hay who have fallen in the war.

Scottish Lawsuit over Poisoning by Eating Yew Leaves.—An action was brought recently against the minister and kirk session and the heritors of the parish of Girthon, in the South of

favour is its great usefulness in the mixed border, or the planting of it *en masse* for a bold display in the summer bedding scheme. A really bright and harmonious bed may be made by using the Geum as a carpet and relieving it with *Lilium tigrinum*. It may perhaps be useful to mention that the Geum does splendidly in pots, and really useful decorative plants may be obtained in pots 5 inches and 6 inches across.



A GRAND BASKET OF APPLE WELLINGTON SHOWN AT THE ROYAL HORTICULTURAL SOCIETY'S RECENT EXHIBITION OF BRITISH-GROWN FRUIT.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Little-Known British Bartsias.—With reference to the remarks in your issue of September 25, page 468, on the white variety of *Bartsia Odontites*, I may say that I do not think it can be, as suggested, of very rare occurrence, as I have found it quite often in Devon, and in more than one spot in the neighbourhood of Padstow, Cornwall. One patch in particular I remember, growing at the side of a field, was very large and fine flowered. It was also my luck to make the acquaintance of the yellow Viscid *Bartsia* (*B. viscosa*) in Cornwall this year, described by Sowerby as "one of our rarest plants," found chiefly in Devon and Cornwall and in Argyllshire. It was growing in great

for these fascinating flowers. Who can see Marigolds and Rosemary and not think of Shakespeare's Perdita and her "flowers of middle summer"? And what of all the many flowers mentioned by Keats and many another poet? Think, too, of all the legends and folk-lore interwoven in the garden—the dove and Olive branch, the crown of Bay, the Parsley crown, and the homely housewife's Lavender and herbs.—ANNE AMATEUR.

Covered Chains for Roses.—The invention mentioned by "West Country" in the issue of THE GARDEN for October 2, page 480, seems to me an admirable one. I am well aware that chains are often used without any covering except paint, and I believe they are so used at Kew Gardens, but in my opinion something, such as Bamboo sections to place between the iron and the growth of the Rose, is a great advantage. Personally, I would dispense

when they cannot be tied up closely, as is the case when chains are used.—C. G. B.

— Having seen Roses in great variety growing on chains without in the least suffering thereby, I cannot think the iron directly responsible for any ill effects. An instance of climbing Roses failing to give satisfaction once came under my notice. The failure was at first attributed to the iron supports on which the plants were growing. Further investigation, however, revealed the fact that other Roses trained on walls were also in the same unsatisfactory condition. An examination of the subsoil proved that there was a complete absence of drainage, and, of course, the roots were dead, or dying by degrees. There is a risk if tender shoots are secured too tightly, especially if string is used.—C. RUSE.

Sternbergia lutea in Scotland.—It was a pleasure to an admirer of the Sternbergias to read the excellent article on *Sternbergia lutea* in THE GARDEN of October 2, page 481. It is one of the most interesting and practical of the contributions which have been made on this charming bulbous plant, and should induce many who have not yet attempted to cultivate the alleged "Lily of the Field" to grow it. I may, perhaps, be permitted to refer to the point of shyness of flowering mentioned by the writer of the article in question. It does not present itself as a problem of so much consequence to the cultivator in the warmer South as in the colder Midlands and North of England and practically the whole of Scotland, where it is a great bar to the more general cultivation of the *Sternbergia*. In many places there it is hopeless to expect *S. lutea* to flower at all well. Personally, I am inclined to attribute this to the lack of heat in summer to ripen the bulbs properly, but it is sometimes said to be due to the premature decay of the foliage caused by early frosts in autumn. I have found the same difficulty with *S. macrantha*, however, and this produces its leaves much earlier—before the flowers—and premature decay of the foliage may in this case be ruled out of court. *S. macrantha*, by the way, appears, as your contributor remarks, to be possibly less hardy than some. It is extremely fine, but I have never been able to keep it for any length of time in the open. Of the forms of *S. lutea*, I have found *S. angustifolia* the freest bloomer, and my best results with it were obtained by planting in a warm, sunny, sheltered place, and by mixing some lime rubbish with the soil. It is so beautiful that one would gladly plant it more largely, but its irregularity of flowering is a great drawback, and it is galling to see its leaves appear year after year without any blooms accompanying them. The *Sternbergias* are so beautiful that those who can should attempt them at least. If successful in flowering them annually, the reward will be great, and a perusal of the article referred to will be well repaid.—S. ARNOTT, *Dumfries*.

Ixoras.—The magnificent group of *Ixora coccinea* from Warter Priory which was shown at the meeting of the Royal Horticultural Society on September 28 was greatly admired. Certainly never before has such an exhibit been seen at the Hall, for *Ixoras* have long rested under a cloud. Time was when they were extensively grown in gardens, especially in the days when specimen plants were popular, for no collection was considered complete without a liberal percentage of the best *Ixoras*. A fact perhaps not sufficiently recognised is that neat flowering examples may be grown in pots from 5 inches in diameter upwards. Their cultural requirements are not



TEA RAMBLER GROWING SUCCESSFULLY
OVER WELL-PAINTED IRON CHAINS.

with chain altogether and use instead stout rope, such as that employed by fishermen. This lasts a good long time, and when the Rose growths are well developed they practically support each other. The same objection to bare iron or wirework holds good with trainers for weeping Roses, also for stem supports for standards, and here is an opportunity for some up-to-date sundriesman to supply the necessary article. I should now like to point out the very great harm that follows the use of wired labels to Rose plants. I refer to those that are fastened on the branches. I have frequently found such branches quite dead after a severe winter, and whether it is owing to the action of frost on the copper or zinc wire I cannot say. I would advise all Rose-growers to banish such labels, or, if they employ them, to use aluminium wire or tarred twine. Perhaps some Rose amateur will favour us with his experience, for I have found it is from the amateur that we specialists often receive most valuable hints.—WALTER EASLEA, *Eastwood, Leigh-on-Sea*.

— I would like to mention that I have found new tarred rope about 1½ inches or 2 inches in circumference the best thing for training Roses upon between poles. Chains of iron are bound to get very hot in the sun and cold in frost, and so the wood of Roses suffers. Rope does not vary very much, and so the Roses can be tied quite close to it; they will not blow about in high winds and fray through the tie, which so often happens

profusion and luxuriance in marshy land. I hope these remarks may be of interest to your correspondent.—E. M. DUNN, *Tor Bryan Rectory, Newton Abbot*.

Garden Literature.—As I am in the midst of the miseries of "moving house," I have not read THE GARDEN very carefully just recently, but a note on garden literature by "Hurstcot," issue October 2, page 480, caught my attention, though I missed that of "C. H. S., Alderley Edge." Apparently the latter is one of those of whom Wordsworth wrote

"A Primrose by the river's brim

A yellow Primrose was to him,

And it was nothing more"

if he asserted "the garden appeals only through the eye." Mine appeals to the nose also, not to mention imagination and memory. When a Daffodil I see, I think of the poets in the spacious days of Good Queen Bess. Tulips recall Holland and the extraordinary mania that raged there

at all exacting, for cuttings of the half-ripened shoots root without difficulty if put into well-drained pots of peat and sand and plunged in a close propagating-case where there is a gentle bottom-heat. If stopped freely during their earlier stages, they form good, bushy plants that will flower profusely. Established specimens should be repotted when necessary during the latter part of February, at which time the roots commence to be active. A suitable compost may be made up of equal parts of loam and peat, with a good sprinkling of silver sand, and, in the case of large specimens, a few nodules of charcoal. No fewer than nine *Ixoras* were given first-class certificates by the Royal Horticultural Society between the years 1867 and 1891, but only one has been honoured since, and that obtained an award of merit in 1905. *Ixoras* are readily crossed, and the seedlings flower freely in a comparatively small state.—H. P.

NATURE - LORE.

In October, 1913.

We cannot hope to vend our verses now,
Unless they treat of insects, birds, or flowers;
A thought which corrugates the brainless brow
Of one poor scribbler, fond of fireside hours.

Myself, I rarely take these country walks;
And if I do the birds will not converse
As I go by; with me no blossom talks;
No insect-wonders dialogues rehearse.

In October, 1915.

Yes, they were hard at work two years ago,
Successful scribblers versed in Nature-lore.
They're at it still, as weary censors know.
How far seems Fleet Street from that dug-out's
floor!

They've watched the moths alight on Belgian
grass;
Heard song-birds courting all round Sixty Hill.
Their rhymes (omitting place-names) always pass;
Their Editors compete to show good-will.

Flowers? Ah, believe me, they don't write on
those!
When they see flowers, it's where thoughts lie
too deep
For scribblers' rhymes, . . . where multi-
lingual prose
Tells friends and kinsfolk, briefly, *where to weep.*
MABEL GARLAND.

The "Daily Mail" Show of Vegetables.—I am quite in agreement with your correspondent, Mr. F. Herbert Chapman, in your issue of October 2, page 480, in his various remarks as to the above show. It was truly a wonderful exhibition of kitchen garden produce, the like of which it is safe to say has never before been seen in this or any other country; but I am bound to admit that from a spectator's point of view it was disappointing in the extreme, and as none of the items was labelled, it was a bitter disappointment to many. Had these been properly arranged, as they unquestionably should have been, it would have made all the difference from the point of view of the public. No doubt the authorities were seriously handicapped owing to lack of space, as it was originally intended to hold the show at Olympia; but even in spite of that fact, there was a wealth of splendid material to have made an imposing exhibition. Showing

the produce in boxes was a serious mistake. Had this all been arranged by competent persons on slightly slanting boards, with suitable decorative and foliage plants through the centre, I am convinced a pleasing effect could have been made. E. B.

—Mr. Chapman, in commenting on the *Daily Mail* Show of Vegetables, said he came away with mixed feelings. "Great cry and little wool" was the thought that came to me after reading the report of the show and the great talk of increasing the nation's food supply. Our society has held a most successful show for the last twenty years. This season we dropped it. The reason given to our subscribers in a circular sent to each one was this: That the growing of show produce was incompatible with getting the most out of the ground. We, however, offered prizes to those who had cropped their ground the closest. Between fifty and sixty plots were judged. All were good, there being

The seed was sown of twenty-one of the best varieties, of medium height, on January 22, raised in a slight heat, pricked out into boxes when quite small, placed near the glass in a temperature of about 50°, properly hardened off, and planted out in the middle of April on a piece of ground 66 feet long and 36 feet in width, allowing a distance of 15 inches between the rows and 12 inches from plant to plant, and keeping them in their varieties. These were neatly staked, and the wealth of colour they gave when at their best was dazzling. By keeping the seed-pods removed, the plants continue to flower till quite late in the autumn. At the time of writing (October 2) the plants are quite gay. The varieties came practically true from seed, and I enclose a photograph of them, which I hope can be reproduced.—EDWIN BECKETT, *Aldenham*.

Ixias for the Rock Garden.—The note by "H. P." on page 486, issue October 2, draws attention to the usefulness of *Ixias* for the embellish-



SEEDLING ANTIRRHINUMS AT ALDENHAM HOUSE GARDENS.

only 1½ points between the first and second prize-winners. These plots were crammed from top to bottom with all that is necessary for a working man's household. The committee are satisfied that their object, namely, intensive culture, has been achieved.—JAMES SMITH, *Hon. Secretary, Harrow and Roxeth Allotment Society.*

Antirrhinums as Bedding Plants.—I am entirely in agreement with the remarks of your various correspondents in relation to these as summer bedding plants. I was first impressed with their value a year or two ago, when an extensive trial was made at the Royal Horticultural Society's Gardens, Wisley. Seen on a fine day as I saw them and about at their best, few things could be more beautiful. Though I have had a warm regard for *Antirrhinums* from my childhood days, and have grown them more or less ever since, this is the first year that I have attempted to seriously cultivate them, and my ambition has been more than realised.

ment of the greenhouse. Some of your readers may be interested to know that they can be grown with success in the rock garden, where they look particularly well, their slender stems, with brilliant coloured flowers, rising above the carpeting plants. As it is very cold here (Birmingham) and we are liable to hard frosts, I bury the bulbs 2 inches to 3 inches deep, and under a carpeting plant, such as *Hutchinsia alpina*, or, if in the open ground, give a little straw protection. I find they do not give very satisfactory results the second year, but as they are so very cheap, it is well worth while to plant a few fresh bulbs every October.—H. E. I.

FORTHCOMING EVENT.

October 18.—Royal Botanic Society of London
Lecture by Professor H. B. Bottomley on "The Discovery of Auximones," 4 p.m. Fellows' Rooms, Royal Botanic Gardens, Regent's Park, N.W.

THE ROSES OF AUTUMN.

JUNE, with its brilliant days and plethora of floral beauty, has so long and so often been quoted as the month of Roses that the layman may well be pardoned for looking upon it as such. Nor is he entirely wrong in doing so, because the majority of our Roses, especially in an early summer such as the past undoubtedly was, unfold the first of their blossoms at that time. But in modern Rose-growing these early blossoms are regarded as but the forerunners, the advance guard as it were, of the great floral pageant that is to come, and which is to extend into October, or, indeed, in some green years, well into December, before the stragglers from the rearguard bow their heads in winter sleep. Time was, and not so very far distant, when such a prolonged display would have been thought impossible. Twenty years ago the end of July indicated, to all intents and purposes, in Southern Counties, the completion of the Rose season, the few flowers that opened on some of the Hybrid Perpetuals and Teas after that date being looked upon as of little account, and certainly not worthy of taking into consideration when planning gardens for autumn effect.

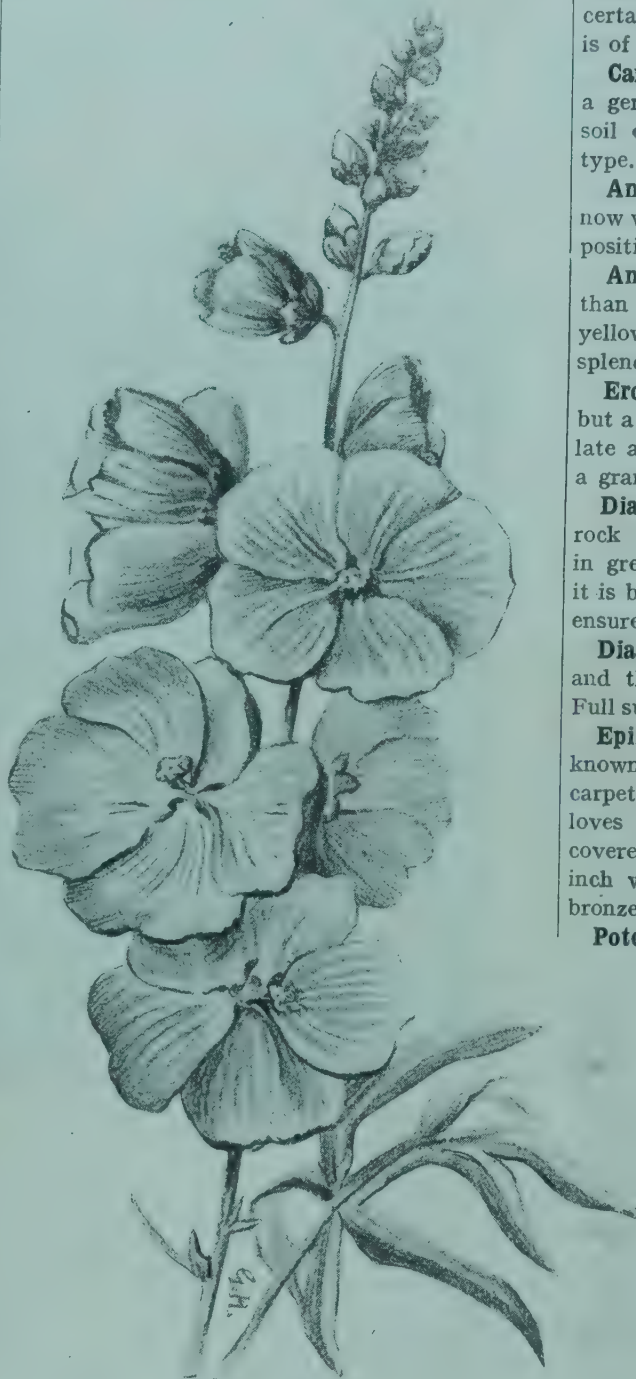
Thanks to the labours of hybridists in this and other countries, all this has been changed, and the Roses of autumn are rightly regarded as a feature of the garden during the waning months, when they are even more highly appreciated than their more fulsome though more fleeting brethren that open in the heyday of summer. Until the last six years the Hybrid Tea and Hybrid Musk Roses were the two families that we had to almost rely upon for autumn blooms, and even now they form the bulk of the Roses that flood our gardens with colour and fragrance at this season; but there is another race, and one that is rapidly growing, that must be taken into account. This is the set known as Pernetiana Hybrids, which embraces such varieties as Lyon, Arthur R. Goodwin, the brilliant yellow Rayon d'Or, and others.

It may, perhaps, be useful to give the names of some of the best autumn-flowering Roses, as a guide to those who may contemplate planting in the near future. All are bush or standard Roses except where indicated: Aimée Vibert, white, climbing; Antoine Rivoire, cream; Arthur R. Goodwin, buff yellow; Bouquet d'Or, buff, climbing; Camoens, deep rose and yellow; Caroline Testout, pink; Comtesse du Cayla, nasturtium red; Countess of Derby, peach; Duchess of Wellington, saffron yellow; Ecarlate, scarlet; Snow Queen, white; George C. Waud, crimson, suffused orange; General Macarthur, light crimson; General Schablikine, rosy salmon; Gloire de Dijon, buff, climber; G. Nabonnand, pink, shaded rose; Grüss an Teplitz, bright crimson, pillar; Gustav Grunerwald, carmine pink; Gustave Regis, nankeen yellow; Harry Kirk, pale yellow; Hugh Dickson, crimson, pillar; Jessie, bright crimson, Polyantha; Lady Alice Stanley, silvery pink, with rose reverse to petals; Lady Ashtown, deep pink; Lady Hillingdon, orange yellow; La France, pink; Lady Pirrie, coppery salmon; La Tosca, pale rose; Leonie Lamesch, coppery red, Polyantha; Longworth Rambler, bright crimson, climbing; Lyon, salmon pink and yellow; Miss Cynthia Forde, silvery pink; Mme. Abel Chatenay, salmon pink; Mme. Eugène Resal, coppery rose; Mme. Ravary,

pale orange; Mrs. John Laing, pink; Rayon d'Or, bright yellow; Richmond, crimson; Viscountess Folkestone, creamy white and pink; and Warrior, crimson.

SIDALCEA CANDIDA.

A NATIVE of New Mexico, *Sidalcea candida* is a hardy, handsome herbaceous perennial growing from 2 feet to 4 feet high, and bearing terminal racemes of large, pure white flowers. It is a very



AN AUTUMN-FLOWERING MALLOW. *SIDALCEA CANDIDA* ROSY GEM.

useful and ornamental plant for the herbaceous border, the wild garden or the shrubbery. At all times it should be planted in large masses; it then makes a very bold and attractive display. Even a bed of it in some secluded spot, providing it is not too shady, produces a very fine effect when in bloom. The flowers of *Sidalcea candida* Rosy Gem are of a deep rose colour and very attractive. They are as large as a florin, and profusely borne on stems $3\frac{1}{2}$ feet high. It is without doubt an excellent autumn-flowering plant.

LATE-FLOWERING ALPINES

IHAVE often heard the complaint among alpine-lovers of the dulness and scarcity of flowers in their rock gardens during September, but by a careful selection of plants this can easily be avoided. For the use of those plant-lovers so disheartened I give a list of very showy alpine flowers now flowering profusely upon my rock garden.

Campanula haylodgensis (syn. *Profusion*).—This is now one mass of pale blue flowers, and is certainly one of the showiest of Bellflowers. It is of the easiest cultivation on any sunny ledge.

Campanula haylodgensis flore pleno is really a gem, and rather rare. It needs a very gritty soil or moraine, and is not so rampant as the type.

Antirrhinum sempervirens is very effective now with its pale cream flowers. It loves a vertical position or wall and full sun.

Antirrhinum Asarina is of coarser growth than the previous one. It is now covered with yellow flowers. It has a trailing habit and does splendidly as a wall plant.

Erodium corsicum.—A rather new introduction, but a perfect gem for its continuous flowering until late autumn. It bears clear rosy flowers, and is a grand acquisition for any sunny spot.

Dianthus Atkinsonii.—A grand and beautiful rock plant, with the deepest red flowers borne in great profusion. For the benefit of the plant it is best to stop it flowering in late autumn, to ensure a good growth for the following season.

Dianthus Napoleon III. is similar to the above, and the double flowers are of the same colour. Full sunny position and gritty soils suit them both.

Epilobium macropus.—A rare and little-known Willow Weed, but one of the best of carpeting plants for the moraine possible. It loves a half-shady position, and is profusely covered with clear white flowers about half an inch wide. These, standing slightly above the bronze foliage, are very effective this month.

Potentilla Tonguei.—This is unique among alpenes for its quaint and pretty colouring of the flowers, which is a combination of red and orange. It loves a sunny position in poor soil.

Felicia abyssinica.—A miniature shrub covered with blue, Daisy-like flowers, reminding one of *Bellis rotundifolia cærulescens*, but with much clearer sky blue flowers; it loves the hottest spot in the rock garden.

Sedum pulchellum.—The prettiest of the genus, I think. Its clear pink, starry-like inflorescences, about 4 inches wide, give a lovely patch of colour on the rockery in autumn.

Sedum spurium atropurpureum cannot be omitted from a list of late-flowering alpenes. It is by far the best red *Sedum* grown.

Sedum populifolium is a very distinct shrubby species about 9 inches in height, the flowers opening a pure white, changing to a delicate shade of pink.

Sedum middendorffianum.—A dainty plant with clear golden flowers and finely cut bronze foliage. All *Sedums* love full sun and gritty soil.

Convolvulus althæoides is particularly effective on the rockery now. The flowers are of a pale satiny pink, rising above finely cut, silvery foliage.

It is rather rampant in habit, and is an ideal wall plant for sunny positions.

Convolvulus mauritanicus is another pretty plant, having clear blue flowers. It is most effective as a wall plant.

Veronica corymbosa.—A very quaint and pretty plant. The usual spike of this Veronica seems to divide into about ten or so small ones, which rise and form a corymb, making it quite distinct among the Speedwells. It has dark blue flowers and loves full sun.

Samolus repens.—A damp position on the bottom of the moraine suits this dainty gem well. Its clear white flowers studded all over the brown foliage make it very effective.

Veronica canescens.—A very pretty plant for carpeting a sunny moraine. The best description would be the counterpart of *Arenaria balearica*, but covered with pale blue flowers.

Cheltenham.

E. C. BOWELL.

THE BURNING BUSH.

(*DICTAMNUS ALBUS*.)

THE *Fraxinella* or Burning Bush is a very old and popular inhabitant of our gardens, having been grown in this country for over 400 years. As a subject for the herbaceous border it is a beautiful and interesting plant, interesting on account of the volatile inflammable oil which is exuded from the flower-heads and

seed-capsules during the hot weather. If a light be applied in the dusk of a summer evening, the whole plant will be more or less enveloped in a bluish flame, which is, however, only of very short duration. The white-flowered form, which is the type of the species, makes a bushy plant from 2 feet to 3 feet high, with large flowers in terminal spikes well above the foliage during the month of June.

In the colour of its flowers the *Fraxinella* is very variable, one of the finest and largest forms being *D. a. purpureus*, or *caucasicus* as it is sometimes called. It grows in good soil about 4 feet high, with larger foliage and flowers varying in colour from light to deep purple. These plants flourish in any good garden soil or sunny position, but resent moving. After being transplanted they take a long time before commencing to grow freely, so that to have good, well-flowered plants it is necessary to leave them severely alone when established. For this reason it is an excellent subject for naturalising in open beds in the wild garden, where it may be left undisturbed for years.

When it is necessary to increase the stock, the plants may be lifted carefully in early spring and the rootstock parted, leaving several eyes to each piece. These should be replanted firmly, if possible, in the position they are intended to occupy permanently. Seeds are produced freely, and offer another means of increase. They germinate readily, and may either be grown on in pots till large enough to plant out or in nursery beds.

A HYBRID JAPANESE ROSE.

(*ROSA RUGOSA* × *R. MACROPHYLLA*.)

THE Japanese Rose (*Rosa rugosa*) hybridises readily with other species and varieties, as is seen by the number of varieties now in cultivation. The chief object in these crosses has been to obtain ornamental flowering plants, good examples of which we possess in Mrs. Anthony Waterer and Blanc Double de Coubert. The subject of this note is chiefly remarkable for its handsome fruits. Among the species and varieties of wild Roses, there are many which produce highly ornamental hips or fruits in autumn and winter. These vary in colour from light orange red to jet black.

As is only to be expected of hybrids, the seedlings vary in character. Two large specimens in the Rose collection at Kew in November last were laden with hips. In one the bush resembles more in habit that of *R. rugosa*, the female parent, while the other is about 6 feet in height, showing distinctly the characters of the male parent. The fruits are rather lighter in colour than those of the Japanese Rose, and are borne in large clusters of twelve to fifteen or more hips, which in many instances bear down the branches with their weight. Individually the fruits are 1 inch to 1½ inches in length and three-quarters of an inch in diameter. The persistent calyx often exceeds 1 inch in length. Bushes of this hybrid make attractive lawn specimens, or are suitable for planting as a hedge to the Rose garden and as groups in shrubberies.

A. O.



DICTAMNUS ALBUS, THE BURNING BUSH OR CANDLE PLANT, NATURALISED IN THE WILD GARDEN.

PLANTING A CARRIAGE DRIVE.

BY GERTRUDE JEKYLL.

IT is perhaps the better general rule in garden design that the planting just within the entrance gate, and from there to the house, should be kept green and quiet, as a more suitable introduction to a bright display of flowers in the garden proper; but no one can find fault with the feeling of gracious hospitality that prompts the planting of bright flowers as a cheering welcome to the visitor. A suggestion for such a planting in a belt on each side of the road is shown in the illustration. A wide grass verge is next to the road. There must necessarily be a good proportion of evergreen shrubs, so as to secure a well-clothed appearance in the winter months. There are, therefore, close to the entrance, groups of green Holly, enlivened by the silvery stems of Birches. Then follow Rhododendrons and common Junipers, with Pernettyas and Andromedas to the front, and beyond them Tamarisk, a beautiful shrub that is too much neglected in general planting. After a good stretch of groups of shrubs of green foliage, with suitable companions of deciduous habit, there comes a region where reddish colour, both of bloom and leaf, predominates. Here the foliage, if not itself red, is of that soft grey that either takes a pinkish tinge or that, by its natural tenderness, harmonises well with pink and reddish bloom; this will be Tamarisk, Retinospora and Rhus Cotinus. At the far end and on the opposite side the prospect is further varied by a glow of golden foliage and yellow bloom. The shrubs are planted in generous masses; the long-shaped drifts are important, especially where much of the planting is viewed from a distance; it joins one group in pleasantly with the next, and avoids the meaningless, spotty appearance so often seen. The position of any of the groups of shrubs can be taken as a

suggestion for a more extended planting of the same, or of shrubs of the same class, on the further or garden side; thus, the road background of Rhododendron and Juniper would have more of these and would form the back of a Rhododendron garden; while, further along, Arbutus, Tamarisk and Retinospora, also added to in number and disposition, would be an admirable background for clumps of Azalea, Kalmia and Heaths.

A LITTLE-KNOWN SOPHORA.

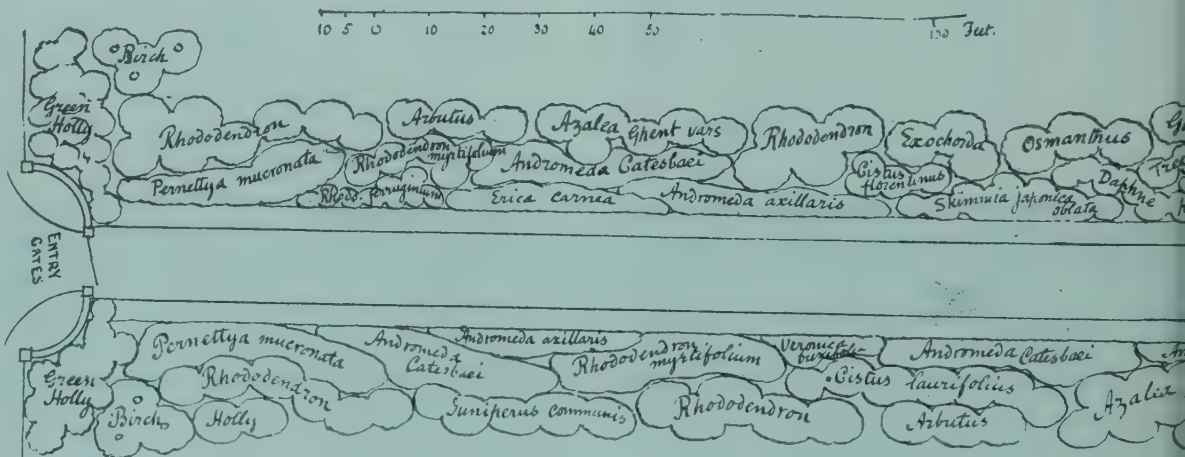
(S. VICIFOLIA.)

DURING the last twenty years many attractive trees and shrubs have been introduced to our gardens from China. Among these, Sophora viciifolia is one of the most valuable acquisitions. It is a deciduous shrub of elegant habit, some 4 feet to 6 feet high, or more when planted against a wall. The pinnate leaves give to the branches a light and graceful character. During June the branches are laden with short racemes of Pea-shaped blossoms, bluish white in colour, with violet or blue calyx lobes. A sunny position and a well-drained loamy soil are desirable for

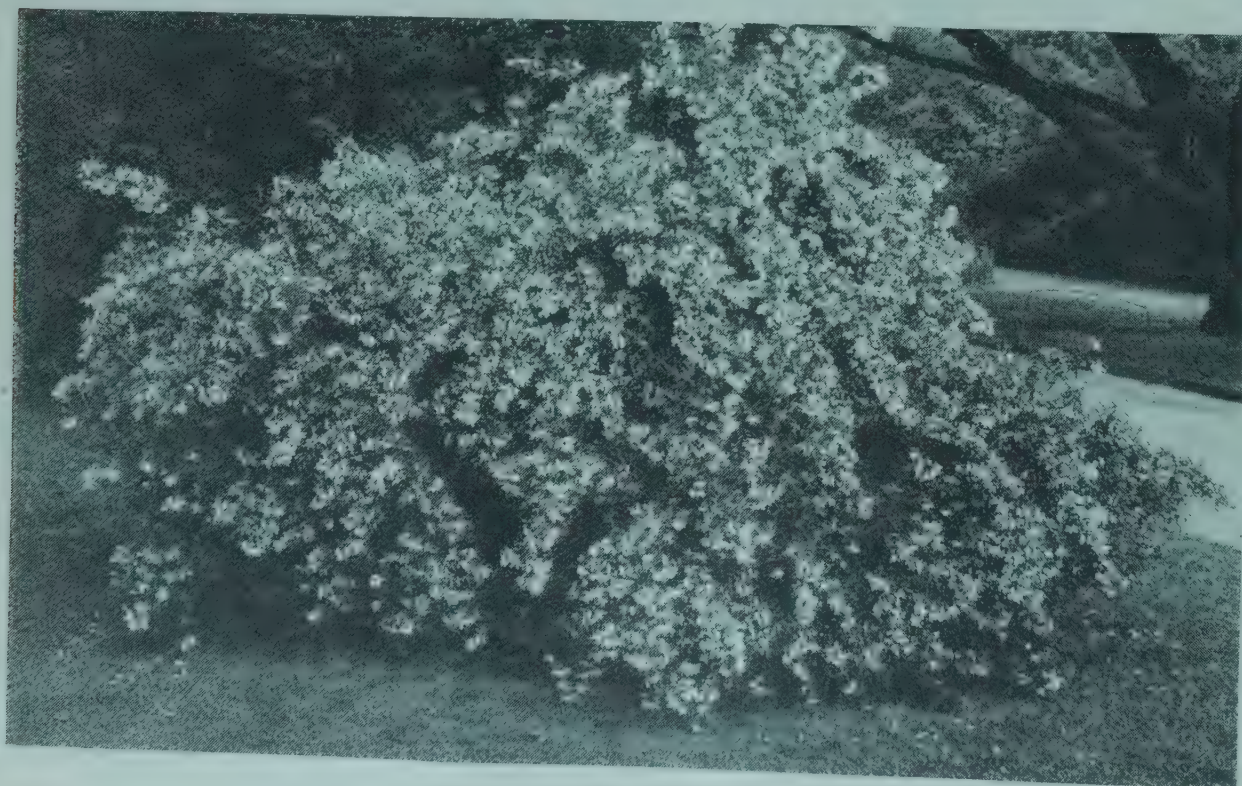
the successful cultivation of this Sophora. Propagation is by seeds, which ripen freely on the bush illustrated. Until large enough for the permanent position, *S. viciifolia* should be cultivated in pots, as, except in a young state, it does not transplant readily. If necessary, the pots can be plunged in the ground, as is done with Ivies and Clematises in nurseries. In China the bushes grow wild over a wide area in Yunnan, Hupeh and Szechuan, and have been found at an elevation of 13,500 feet on the Tibet frontier. A. O.

THE TULIPS THAT FLOWER IN MAY.

OF all the hardy flowers that come to us in the heyday of springtime, few possess the quiet dignity and quaint charm that surround our May-flowering Tulip. As the bulbs of these ought to be planted not later than the end of October, and earlier if possible, no time ought to be lost in preparing the soil.



PLAN, SHOWING THE PLANTING.



THE FREE-FLOWERING SOPHORA VICIFOLIA AT KEW.

Deep and thorough digging is necessary, but manure, unless very thoroughly decayed, ought not to be added. A good handful of bone-meal to each square yard, scattered on the surface and lightly forked in after digging is completed, will be much better. Four inches is a good depth to plant the bulbs. These late Tulips must not be thought of in conjunction with the early, fugacious kinds that the maker of formal beds uses so religiously, but as flowers apart from all others for grouping in masses of one colour in the herbaceous border, in large beds, or, indeed, in any moderately open situation where bold flowers of good and distinct colours are appreciated. Arranged in this way under young Apple trees they create a glorious effect, the Apple blossom opening at the same time as the Tulips. While the Daffodil is creating bold splashes of gold and white in the garden, our late Tulips do not command much attention; it is only

when the first-named flowers have departed, and when there would be a hiatus in the outdoor display, that the full beauty and usefulness of the May Tulips are appreciated.

One emphasises the word usefulness advisedly, because these flowers are second to none for cutting, their long, sturdy stems enabling the veriest tyro to arrange them artistically in large bowls or jars, preferably those of plain, dull exteriors, such as the old Cornish pitchers. One of these loosely filled with a brown or mahogany-coloured Tulip, such as Dom Pedro, and placed so that white or cream wall-paper forms a background to the flowers, will give a picture of floral beauty that is scarcely obtainable in any other way. So varied and quaint are the colours to be found among these Tulips that they can be culled for all sorts of colour schemes. One of the prettiest effects the writer has ever seen was a large, plain Wedgwood blue vase filled with the common blue German Iris and the mauve lilac Darwin Tulip Rev. H. Ewbank, the sword-like foliage of the Iris forming the necessary garniture.

There are two main distinct types of May-flowering Tulips, one known as the Darwin, a comparatively modern race, the origin of which little is known except that they were raised in a Dutch nursery. The other is the Cottage Tulip,

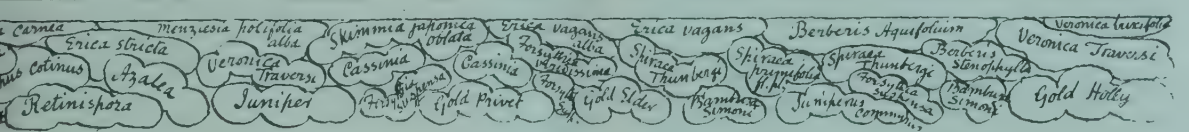
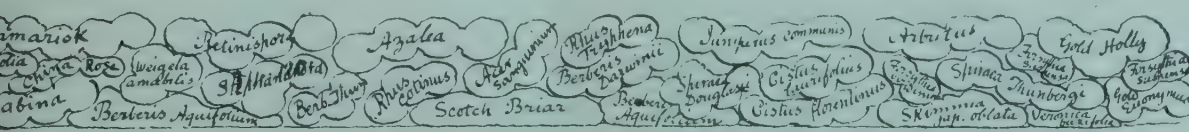


A BORDER OF MAY-FLOWERING TULIPS IN A READER'S GARDEN.

Erguste are two lilac mauve varieties with which I will close my limited list. F.

AUTUMN-FLOWERING BULBS FOR THE ROCK GARDEN.

NUMBERS of bulbous plants and others not belonging to the same great natural division, but which root from tubers or corms, are more fitted for a rock garden than for miscellaneous borders, where, almost unavoidably, they get overgrown and lost. The time has come when we should make notes from the catalogues of some of the more desirable of these for this special position. Too often we forget that provision has to be made at this season for the year to come, and only wake up to the oversight when we see delectable plants in flower in some garden not our own. To recall for a moment some autumn-flowering bulbs, nothing can be more brilliant in late August and September than the Mexican Tigridias; but they are seldom met with, being more often than not killed by over-kindness. Yet they are perfectly easy to manage, so far as the writer's experience goes, in any of the more Southern Counties. In planting, the growing point of the bulb should be not less than 4 inches below the surface, and sandy loam mixed with leaf-mould suits the requirements of Tigridias well. On obtaining new bulbs in the autumn, it may be a wise precaution to pot them rather than to plant out of doors at once, keeping them fairly dry and safe from frost, but in a cool place where they will not be incited to start prematurely. In April they may be turned into their permanent quarters outside, the planter being careful not to disturb any root growth which may have begun. Established clumps may be left in the ground during the winter, provided the soil is of a dry and porous nature, though it is safer then to give them a good covering of ashes. Like most bulbs, Tigridias



CARRIAGE DRIVE BORDERS.

so called because the bulk of the varieties that it embraces have been rescued from cottage gardens during the last fifty years or so. Many of these Cottage Tulips have been found in out-of-the-way places in Ireland, and no little romance attaches to the discovery of some. Both sections include some particularly fine varieties, which, as already stated, are exceedingly useful both for cutting and creating beautiful effects in the garden. The charge has been laid against them that they flower too late to enable the gardener to fill in summer and autumn the spaces that the Tulips now occupy. Where the ordinary bedding plants are relied upon, this is, no doubt, a drawback, but there are a great many other beautiful plants that can be utilised, particularly where the Tulips are planted, as they should be, in bold groups in the mixed border or in beds where a formal effect is not desired.

The varieties of late Tulips are now exceedingly numerous, and no two persons will agree on the merits of all. Thus, in making a selection, individual taste must, of necessity, play a leading part. I must confess to a partiality for those of orange, lilac, violet and maroon colours respectively; but a lady friend, who is by no means a bad judge of colours, cannot tolerate the violet Tulips. However, I will name a few that are my favourites, though some of them are not

regarded as good Tulips by experts. First must come Dom Pedro, a noble Tulip of rich red-brown hue, the interior of the petals resembling polished mahogany. Somewhat similar, but rather later in flowering, is Nigrette. Faust is a beautiful rich maroon Darwin that ought to be in every garden. Velvet King is a beautiful dark purple; and for a good lighter purple, one would select The Bishop, a stately Tulip whose dignity is quite in keeping with its name. Viola is a tall variety of graceful habit, the deep violet petals being slightly suffused with rose, and Mrs. Potter Palmer has flowers of soft rose purple. Among reds, King Harold, with deep crimson flowers, is a favourite; it invariably does well and has stout stems that withstand winds well. Orange King is a beautiful orange scarlet; Cassandra, rose; and Mrs. W. O. Wolseley, scarlet. Moonlight is a delightful yellow variety, with long flowers; and Golden Crown, a sturdy-looking plant, is also good. Among what may be termed fancy shades, there are a great many beautiful Tulips to select from. Clio, biscuit brown; Apricot, a very beautiful shade of that colour; The Fawn, pale fawn; Clara Butt, pale pink, flushed deep flesh colour; Quaintness, coppery orange; Fairy Queen, interior old gold, exterior flushed rose; and Beauty of Bath, pale lemon and mauve, are all worthy of a place in the best of gardens. The Rev. H. Ewbank and

require plenty of moisture during the growing season, with complete rest and moderate dryness after flowering. When the leaves turn yellow, they are ready for their mound of ashes. In a garden where this plan does not succeed, it may be better to give up their culture, as taking up and storing the bulbs through the winter months seldom answers well. There are several varieties of *T. Pavonia*, and the white forms with their rich crimson-spotted cups, though possibly a little more tender than the type, are supremely beautiful. Though all are but flowers of a day, a fresh one opens each morning, and thus their blooming is prolonged for some time. As the flowering stems do not exceed 12 inches in height, *Tigridias* are ideal bulbs for planting in sheltered, level positions in the rock garden, a little removed from the clashing autumn colouring of the herbaceous borders, where their brilliant orange and scarlet tints are not wanted.

Has anyone thought of trying *Belladonna Lilies* in the rock garden? In most gardening directions

species has the character of coming up in unexpected places and not keeping to its own quarters; but whether straying or no, it is never unwelcome. There are several autumn-flowering *Crocuses*, and the rock garden is the spot where they can be seen to greatest advantage and are best preserved from disaster. Of these, besides the one already named, three others may be specially noted, viz., *C. byzantinus*, with some superficial likeness to an *Iris*, hence sometimes met with under the name of *C. iridiflorus*—a large purple flower with paler and smaller inner segments and purple stigmata, a very beautiful species; *C. pulchellus*, varying in colour from blue lilac to white, free-growing and easily increased; and *C. zonatus*, a small kind, the rosy lilac flowers of which are distinguished by an orange base or zone. All of these are charming, flowering in September and October. There are also some white-flowered species, more or less veined, such as *C. cancellatus* and *C. hadriaticus*, which are well worth growing; nor do these exhaust the list. None of them is

Known to gardeners for nearly a century—the species was introduced from Brazil in 1827—it is possessed of a greater degree of hardiness than many imagine, and in favoured counties may be said to be fairly hardy, if not absolutely so. In other districts the plant may be wintered in a cold frame with comparative ease. In any case, even though a certain protection were necessary, it merits attention by reason of the brilliance of its scarlet flowers, the profusion with which they are borne, and generally easy cultivation. E. H. J.

THE DELPHINIUMS OR PERENNIAL LARKSPURS.

FOR creating bold effects in the outdoor garden, the stately *Delphiniums* or perennial *Larkspurs* are unsurpassed. Ranging as they do in height from 3 feet to more than twice that stature, according to the soil and variety, they can easily be accommodated in beds or borders, or any other positions that it may be necessary to fill. Good blue flowers are not too common—indeed, one might almost say that they are rather scarce—hence, we should make full use of these stately perennials, which embrace so many shades of blue. Fortunately, their cultivation does not call for any special skill. Good, generous diet, and attention to a few details that I will mention, are all that is necessary. Like every other plant that we undertake to grow, the *Delphiniums* well repay good cultivation, and for that reason the soil should be well and deeply dug, or, better still, trenched to a depth of 2 feet, and a liberal quantity of partially decayed manure thoroughly incorporated with it. Planting is best done in autumn, i.e., from the third week in September until the end of November, or during February and March, or the first week in April. For preference one would select autumn, as the plants then have an opportunity of becoming well established before flowering-time, which is usually June and July. As they are plants of goodly dimensions, overcrowding must not be tolerated, and from 2 feet to 3 feet apart is not too much space to allow.

The greatest enemy of *Delphiniums*, especially those that have been recently planted, is the ubiquitous slug. This insidious pest will, during the winter, scoop out the dormant shoots, and so ruin all prospects of flowers the following summer. It is important to remember this, because to it more failures can be attributed than to any other source. The remedy—a very simple one—is to cover each plant with a 2 inch thick layer of coal ashes early in the autumn, and see that it is well worked down between the stumps of the old flower-stems.

Summer treatment consists of supplying copious quantities of water during dry weather, supplementing it once or twice a week with weak liquid manure, particularly a few weeks before the flowers open. This makes a wonderful difference in the size, and often the colour, of the blossoms. A 2 inch thick mulching of short stable or farm-yard manure over the roots of the plants will also go a long way towards success, and is essential where the soil is at all sandy. It is not generally known that most *Delphiniums* will give a second display of flowers if properly treated. The *modus operandi* is to cut the flower-spikes down close to the ground as soon as the blossoms have faded,



THE BRILLIANT SCARLET VERBENA CHAMÆDRIFOLIA.

the indispensable condition for their culture" is said to be planting in the outside border of a hot-house or at the foot of a warm south wall, and no doubt these are excellent positions. But the *Belladonna Lily* is a denizen of the mountains, and, under natural conditions, has its bulbs wedged into crannies and crevices of the rocks, and sends its fibres into such crumbled granite, sand and scant peaty soil as can be found in such situations.

To come to less exacting subjects. It is when other plants are beginning to look fatigued and forlorn—all except the Mossy Saxifrages, which take on a fresher green from the chill night dews—that the autumn *Crocuses* will brighten any sunny nook we may have to give them. The best known, as also the first to appear, is *C. speciosus*, with large pencilled flowers of a fine blue-purple and showy orange stigmata—a veritable gem which comes to greet us unawares, so wedded together in our minds are *Crocuses* with spring. This

to be confused with the larger spring-flowering Dutch varieties, being mostly species from South Europe and Asia Minor, but they are cheap enough to be planted in some quantity. It is not a bad plan in the rock garden to carpet the surface of the autumn *Crocus* clumps with one of the small *Sedums*, *S. glaucum* or *S. Lydium*, as foliage is scanty when the flowers first spear through, and it serves to mark the spot as occupied. K. L. D.

LATE-FLOWERING VERBENA. (V. CHAMÆDRIFOLIA.)

DURING recent years hardy plant gardeners have brought this brilliantly flowered species into well-merited prominence by employing it more or less freely in rock wall, terrace and rock garden at the leading exhibitions, and probably many of our readers will recall seeing it at the Summer Show held this year at Holland Park.

then *thoroughly* water the plants, and as soon as new growth is active, feed well with weak liquid manure and renew the mulching. If watering is persisted in during dry weather, secondary flower-spikes will soon be formed, and, although not so large and stately as those that opened earlier, will, nevertheless, be very welcome in the autumn months.

The simple operation of staking is, of course, necessary, and is only referred to here because it is so often badly done, the flower-stems being trussed to a stake so that they form a passable caricature of a Birch broom. Miss Jekyll has adopted the most sensible plan that I know, and one that preserves the natural contour of the plants. Her method is to use natural sticks, such as are usually employed for supporting Peas, three or more of these being thrust in to each plant so that the shoots can push their way up between the branches. Very little tying is necessary, and the effect is excellent.

Delphiniums from Seeds.—

Although there are a great many named varieties listed in catalogues, a packet of seed purchased from a first-class firm will give a quantity of plants that are not very inferior, and which, for ordinary purposes, answer quite well. The seedlings are not difficult to raise. The best plan is to sow the seed in shallow, well-drained boxes or pans of sandy soil during April, May or early June, and place them in a cool greenhouse or frame. When an inch or 2 inches high they must be transplanted to a bed of finely pulverised and well enriched soil, where, by the autumn, they will have made sturdy young plants that will give some good flowers the following May or June, though not so large as may be expected another year hence.

The following are some good named varieties that are not too expensive for general planting:

Belladonna.—An old variety with sky blue flowers, which are produced very abundantly. Height, 3 feet.

Christine Kelway.—A tall variety with sky blue flowers and white eye. Considered by many to be an improvement on Belladonna.

Langport Blue.—This is a fine variety, 5 feet or more in height. Flowers rich bright blue.

Persimmon.—One of the prettiest of all. The flowers are clear sky blue, and are produced in abundance. The plant resembles Belladonna, but has a more robust constitution. Height, 3 feet.

Rev. W. Wilks.—Deep purple, flushed plum colour, with a prominent dark eye to each flower. A superb variety. Height, 4½ feet.

Sir George Newnes.—A semi-double variety with beautiful cobalt blue flowers, the inner petals flushed plum colour. Very effective when massed. Height, 4½ feet.

Sir Walter Scott.—Deep rich blue, flushed violet, with black eye or centre. Height, 4½ feet.

Althos.—Rich violet, flushed purple, with white centre. A charming variety. Height, 5 feet to 6 feet.

King of Delphiniums.—Semi-double flowers of rich gentian blue, flushed plum colour. Each has a white eye that renders the whole very attractive. A strong-growing variety. Height, 4½ feet.

True Blue.—Perhaps the richest coloured of all the Delphiniums, the flowers being pure intense blue. It has a good constitution and grows from 5 feet to 6 feet high.

General Baden-Powell.—Soft lavender, tinted rose, with a brownish black eye. A very restful colour in the garden. Height, 4½ feet.

James Kelway.—Very rich violet blue flowers, each with a pronounced white centre. Very effective when massed. Height, 5 feet to 6 feet.



BORDERS OF DELPHINIUMS AND FOXGLOVES IN A KITCHEN GARDEN.

Princess Maud.—Unique in colour, which is sky blue, veined rose pink, each flower having a white eye. It is semi-double and of fairly robust constitution. Height, 5½ feet.

Sir Trevor Lawrence.—Sky blue, with the inner petals flushed rose pink, white eye. Good constitution. Height, 6 feet.

Two varieties of more recent introduction, and consequently more expensive, are the Rev. E. Lascelles and Statuaire Rude. The first named has rich violet blue flowers, with a pronounced white eye. It is tall and very erect. The second is a very stately plant, the large spikes standing well above the foliage. The flowers are a charming shade of lavender blue, with a slight flush of rose.

A NEGLECTED VINE.

BY OWEN THOMAS, V.M.H.

[In Answer to a Correspondent.]

EVIDENTLY the Vine before it came into your possession had been over-cropped and otherwise neglected. Naturally, it will take some time to recover lost ground, although the recuperative power of the Vine is wonderful when given reasonable treatment.

In consequence of light cropping this year and the timely attention you have given to summer pruning, you may reasonably hope for better results next year. The cause of the cracking of the berries would, no doubt, be the blight contracted from the affected Beans and Tomatoes near by. This would prevent the outer cuticle (or skin) of the berries from expanding; hence the cracking.

The first essential in the successful culture of the Grape Vine is to secure an ample development of the shoots of the current year's growth, and of fruit buds thereon, as well as the perfect ripening of the same in autumn. It is these shoots which will produce the fruit of next year. "What, then," it may be asked, "are the essential points of good culture it is necessary to adopt in order to bring about the above desiderata?"

1. A well-drained border composed of the best Vine soil, care being taken to keep the same clear of weeds or any other robber crops. Efficient watering, and mulching with manure in summer to prevent drought. Removing the old top soil in autumn down to the roots, and replacing with a top-dressing of best Vine soil. Cover the border over in winter with fresh leaves to the depth of 10 inches, or with clean straw. Remove this at the end of April, and mulch with a layer of manure, 3 inches deep, as above.

2. Careful ventilation. Do not over or under ventilate; keep the atmosphere sweet and just nicely warm. Do not open the front ventilators until the month of April is out. Regulate the temperature by means of the top or back ventilators until then and avoid draughts.

3. See to the regular stopping of young lateral and sublateral

shoots during summer, to prevent the overcrowding of the Vine with useless foliage during summer.

4. Do not crop too heavily; more Vines are ruined by this cause than by any other. Far better have a few bunches of well-developed and perfectly-ripened Grapes than a plethora of diseased and sour fruit.

5. Thin the Grapes as soon as they are set.

6. Keep a moist growing atmosphere in the vinery during the season of growth by syringing the wall and floor twice a day.

7. Give abundance of air in autumn in favourable weather to ripen the wood, and where heat is available, apply it to the pipes in damp weather, with free admission of air for the same purpose.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Grapes.—Where there are only a few bunches hanging in a vinery, they should be cut and placed in bottles in the fruit room. The house can then be thrown wide open and any renovating of the borders done. Any Vines which have been cleared of their crops may be partly pruned, so that the ripening of the wood may be facilitated.

Plants Under Glass.

Humea elegans.—Much care is necessary in the culture of Humeas during the winter months, or many of the plants may be lost. Cool treatment is absolutely essential from now till the spring. Plants requiring a shift into larger pots should be attended to at once. Pot fairly firmly and do not overpot them.

Cannas.—The roots of these useful plants are often unduly shrivelled through storing them under the stages in a warm house. A cool frost-proof shed is the best place to store Cannas during the winter. The plants may be placed closely together and watered occasionally till the foliage has died right down. They may then be covered with straw or leaves.

Chrysanthemums.—There should be no difficulty now in keeping up a good supply of flowers, as plenty of the earlier-flowering varieties will now be coming into bloom. The late varieties must be kept outdoors as long as possible, but they must not be crowded together, or they will lose their foliage. Houses containing Chrysanthemums should be fumigated occasionally to kill aphides.

Eucharis.—Where the plants have been resting since completing their growth, a few may be placed in the stove to flower. The rest may follow at intervals to continue the supply of flowers. They must be thoroughly watered with tepid rain water, and when the spikes can be seen, give them plenty of stimulants. If mealy bug is present, sponge the leaves with strong soapy water.

The Flower Garden.

Planting Spring Flowers.—It is time now that the planting of all spring-flowering plants was commenced, so that they may become well established before severe weather sets in. The beds should be manured when digging, as this will save a considerable amount of work in the summer when other work is more pressing. Wallflowers, Polyanthus, Pansies, Forget-me-nots, Aubrietia, Double Arabis, Alyssum and Canterbury Bells may all be planted now. Let the work of planting be done as far as possible when the ground is in proper condition, so that the plants may be made quite firm.

Salvia patens.—This beautiful Salvia is often difficult to keep through the winter months. I have tried several methods of keeping it, and the one which has been most successful is that of lifting the tubers and placing them closely together in boxes, covering them with soil which is not too wet or too dry. They may then be placed in a frost-proof shed and kept quite dry.

Cannas.—Before these are lifted from the beds, see that they are carefully labelled. Only the very best varieties should be retained, as they are easily increased by division of the roots in the spring.

Fallen Leaves.—To facilitate the work of raking leaves, the long grass beneath trees should be cut before the bulk of the leaves have fallen. All leaves should be stored either for the making of hot-beds or to rot for making manure. Leaves falling on lawns must be kept regularly swept up, or worms will draw them into the ground, making the grass appear neglected. There will be little mowing needed on lawns after this date, but to give them a smart appearance the roller must be drawn over them occasionally.

The Hardy Fruit Garden.

Plums.—This has been almost a record season for Plums, and in many places I have heard that for market purposes the crop has not paid to gather. As is the case with almost all kinds of fruit, the

best sorts are always the most profitable to grow, and this must be borne in mind when buying new trees. For dessert, Early Transparent Gage, Green Gage, Denniston's Superb, Kirke's Blue, Jefferson's, Reine Claude de Bavay and Coe's Golden Drop are all excellent. For cooking, Belgian Purple, The Czar, Victoria, Pond's Seedling and Monarch are all good and reliable.

The Kitchen Garden.

Celery.—Disease has been very prevalent among Celery in this district, causing great damage to the earliest batches. Continue to earth up the later plants when the ground is suitable. In the absence of rain this crop must still be well watered.

Mushrooms.—From now till the spring, Mushrooms must be grown in a house where a temperature of 50° can be maintained without having recourse to much artificial heat. At no time must the hot-water pipes be heated to excess. Continue to collect the materials for making new beds, and prepare them in a dry shed.

Lettuce.—During very wet weather, Lettuce in cold frames should be protected by drawing on the lights. Forward plants out in the open may also be covered if lights are available. If frames are at command, there should be no difficulty in keeping up a supply of this useful salad all through the winter by putting out plants in various stages of growth.

Endive.—The most forward plants may be tied up. These should be ready for use in ten days or a fortnight. Later plants may be dug up with a good ball of roots and planted closely together in frames. Frames may also be placed over plants in the open ground.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

The Flower Garden.

Zonal Pelargoniums.—Where there may be a shortage of cuttings of any particular variety, the old plants should be lifted, partially stripped of their foliage and potted up in 4-inch pots. These plants will also be useful for the centres of large beds or vases where taller plants are required. Very little water will be necessary for them until spring.

Bedding Stock.—As frosts are now inevitable, it should be seen that all tender plants are housed where there is pipe heat or sufficient protection from frost and damp. Opportunity should be taken when removing them indoors to pick off bad and decayed foliage.

Tulips.—Both early and May flowering Tulips should be put into their places, if this has not already been attended to. If the bulbs are kept out of the soil too long, the flowers will not be nearly so fine. Darwin or May flowering Tulips should be planted at least 5 inches below the surface; they revel in rich soil which contains plenty of sand.

Crocuses and Snowdrops.—Where these are to be planted in grass—and they make a fine successional display in spring—a start should now be made, as they commence to emit roots at this season. Lifting back the turf where they are to be put is generally sufficient, if it is replaced carefully and then lightly rolled.

The Kitchen Garden.

Root Crops.—Any crops which may still be left should now be lifted, with the exception of Parsnips and Salsify. These two vegetables are quite hardy and are best allowed to remain where growing, unless the ground is needed for other crops. If possible, choose a fine day for the lifting and storing of Carrots and Beetroot.

Cabbage.—Any blanks which may have occurred among Cabbages which were planted out should now be made good. The largest weeds can then be cleared off, and the ground gone over with the Dutch hoe whenever the weather permits.

Lettuces.—Late-sown Lettuces can be pricked out at the base of a south wall, if such a site is

available. Here they will need no further protection, and if the winter and early spring should prove mild, they turn in very early and generally prove useful.

Seakale.—For very early supplies it is easy to buy retarded crowns, which force very easily and quickly. Either put them in a Mushroom house or place them in pots and cover with an inverted pot of the same size.

French Beans.—It should be quite easy to keep up a supply of this vegetable for some time yet from plants sown outdoors, if protected with frames previously. They must be covered up well when there is danger of frost, and sufficient ventilation kept on during the daytime to prevent the small Beans and leaves damping.

Plants Under Glass.

Violets.—If reasonably fine weather continues, the lights may remain off until severe frost or heavy rains compel them to be returned to the frames. The lights should not be closed except during severe weather. Want of ventilation is a common cause of failure with Violets.

Climbers.—In plant stoves, many of the climbers which have become a little overgrown should now be partly pruned and tied up, to encourage the ripening of the remaining growth and foliage. If this is delayed, the plants growing underneath might possibly suffer from the dense shade caused by the overhanging climbers. Insect pests are also more easily kept in check by attention to this.

Begonia Gloire de Lorraine and its varieties should now be allowed to develop their flowers, unless they are required for very late spring, in which case bud picking may continue for some time yet. As the flowers open, a slightly drier atmosphere should be maintained, but damping of the paths should continue at least once a day.

Hard-Wooded Plants for Forcing.—After all the bulbs have been potted up, these will next claim attention. Lilacs, Pyrus, Prunus, Azaleas, Deutzia, Viburnums and Hydrangea are all easily forced from the middle of December onwards. The Azaleas, Pyrus and Prunus succeed best in peaty soil. After potting, stand closely together outdoors and cover the pots with new leaves to protect them from frost. The plants themselves, however, should be fully exposed, as they respond to heat more freely after being subjected to frost.

The Hardy Fruit Garden.

Preparing Ground for Fruit Tree Planting. Where it has been decided to make any new plantations, either of trees or bushes, the ground must be well prepared in advance. The earlier it is done, the better condition it will be in for planting. Keeping in view that it will have to sustain the bushes or trees over a number of years, ample manure must be trenched in, both under the top and in the lower spits. Where the soil is known to be devoid of the essential plant foods, a sprinkling of bone-meal or other nourishment should be added as the work proceeds.

Fruit Under Glass.

Successional Trees.—Where the grower has not sufficient space at command to nurse young Nectarine and Peach trees for filling up possible blanks, caused by exhausted trees having to be discarded, some young ones should be purchased and planted outdoors, against a south wall for preference. These should now be planted, and later on trained carefully, where they will be of service in later years to take the place indoors of older trees.

Peaches and Nectarines.—The majority of the early trees are now fast dropping their leaves. Sometimes, for the sake of housing Chrysanthemums beneath them, they are removed prematurely. This practice cannot be too strongly condemned. Still, if the foliage is thoroughly ripe, no harm comes from removing the leaves, providing the buds are not injured during the operation. A light brush made of Birch twigs may be used if it is applied in the same direction as the branches of the trees are growing.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

NOTES ON KITCHEN GARDEN CROPS.

THE tropical heat experienced in many districts during the third week in September caused the crops of Autumn Giant and similar varieties of Cauliflower to run riot. Several in our own district started feeding pigs on specimens which, in the ordinary way, would have fetched threepence each. What a pity the growers did not adopt the plan, pretty general in many gardens, of digging these up when about three parts grown and laying the roots in damp soil with the heads facing north. A shady portion of a large wood often enables us to keep surplus heads in good condition for several weeks, while a cool, dark shed serves a useful purpose when these turn in too rapidly for immediate consumption. Small growers, please note. We have now reached the fringe of the season when choice vegetables are likely to be scarce, and quite one of the choicest among these is the Cauliflower.

Tomatoes in Pots.—When these are no longer on the active list, do not throw the soil on to the rubbish heap as worthless; there yet remains much that will help some other crop to make a good start in life. Certainly one of the best uses to which this can be put is, after being sifted, to store it in a dry shed, and next February use it for bedding the early Peas in, also for covering them after sowing. Failing this, use it when preparing the seed-bed for Brassicas. Whenever possible, let the bed of spring Cabbage contain more than one variety, as seasons count much with this crop. What did well last year may be quite out of the running—as far as early heads are concerned—next year, and as it is these we want, avoid failure by having more than one string to your bow. Several years ago I saw many thousands of Imperial, not a bolter among them; last year the reverse was the case. We grew half a dozen varieties; four were wise and two were foolish. Had we relied absolutely upon the two last, what then?

A Word to the Wise.—Inexperienced readers are warned against the folly, often indulged in at this season, of destroying August-sown beds of Turnips, simply because they have not bulbed as early as expected. The experience of the past twelve years proves there to be yet ample time for what at present appears to be only greens developing into useful Turnips before the end of November, and even should this not be the case, these tops may still be dug into the ground, where they will soon decay and form manure. Where beds of half-developed Lettuce are growing in such exposed positions as to cause doubt as to their ability to withstand a sharp snap, the grower is advised to choose the lesser evil, lifting each with a good ball of soil and replanting a foot away from a warm wall, watering well in. Parsley is in constant demand throughout the winter, and although it takes a very severe frost to kill it, risks should not be run; and in the event of heavy snow, it will be found that Parsley-hunting is not nearly the exciting sport many of us find fox-hunting to be. (In food, of course, Mr. Editor.) A few old rough boards, nailed together, make a very good temporary frame for this crop, needing but the covering of a few bushy sticks and sacks to prevent harm from the most severe frost. Parsley transplants quite safely now. Get well

down to the roots, burying these deeply in the new quarters, and always follow up the planting by giving a good watering.

Shortly after established beds of Seakale go to rest, *i.e.*, lose their large leaves, lift some of the most promising crowns and store them in a cool shed. Next month these may be brought into growth by introducing them to a heated house, and this not necessarily a glass one. A dark place in a warm kitchen will grow real good Seakale.

Grading Root Crops.—Where, at the time of lifting the various root crops it is usual to get into winter quarters before the close of the present month, the time of the grower permits it to be done, it will be an advantageous plan if, instead of mixing all the badly shaped, bruised, or undersized specimens of each and storing them together, these latter are put aside for present use, and only those stored away the condition of which shows them to be dependable for keeping over a period of many months, much unpleasantness and loss would be spared the grower.

To show the importance of this, it should be remembered that Parsnips showing signs of decay at the crown soon become worthless after being in the store. A single decayed Carrot is often directly responsible for the loss of many scores; while apart from the unpleasant smell arising from a single Onion which has lost its culinary value, its contaminating presence with sound bulbs cannot fail to have a detrimental effect upon what to most growers is a very important crop.

Feeding Leeks.—The advice to discontinue feeding, or applying stimulants, to growing crops after the end of this month does not apply to Leeks, for growers of large quantities of these will have noticed that, providing we get the usual mild autumns and early winters to which we have now become accustomed, the amount of new growth made by healthy plants of these, after what is termed the end of the growing season, is truly remarkable; and as nothing we cultivate is more hardy than this, and fewer supper dishes more generally acceptable, it goes without saying that, if it is within the power of the grower to accelerate the growth and increase the length of stem, it is wise for him to do so.

Speaking for ourselves, and having a very porous soil to deal with, we never think a thorough soaking with moderately strong liquid manure is out of season where this crop is concerned, a regular deluge being given to the soil between the rows in all save the most frosty weather, the result being I can commend the plan to others, particularly where the soil is light, or to those having soil which, at the time of planting the crop, lacked the addition of those valuable and sustaining food properties a liberal dressing of farm-yard manure assures.

The Way to Deal with Unripe Tomatoes.—Where plants in the open air still carry unripe fruits of these, it will no longer be safe to leave them exposed to certain ruin which a spell of bad weather assures; but if, instead of picking these fruits off close to the stem and laying them in boxes as sometimes advised—which invariably means considerable loss through decay, while others which remain usually become so badly shrivelled as to be of little use, save for soups, &c.—the grower is advised to cut away a good portion of the stem with the bunches, and hang these in a sunny window; here it will be found the fruits colour more quickly, retain their plump condition and good flavour for quite a long period, while the losses from decay will be nil.

F. R. CASTLE.

APPEAL TO COUNTRY PEOPLE.

THE following practical suggestions, among others, are issued by the Board of Agriculture and Fisheries Whitehall Place, London, S.W.:

Produce Food for Yourself!—Everyone who lives in the country or has a garden can produce something to eat—the more the better: vegetables, fruit, poultry, eggs, rabbits, milk, cheese. Plant at once what you can, and prepare in all possible ways for next year's cropping. Every plant in your garden may save you money! Produce all you can; buy as little as possible! Cultivate thoroughly! Destroy insect pests and weeds! Prepare manure!

Preserve and Store Your Crops with Care!—The finest harvesting may be rendered useless by bad storing. Protect from the weather! Destroy vermin! Store your own vegetables! Bottle your fruit or make jam or pulp of it! Preserve your eggs when abundant! Cure your own bacon! Eat little meat! Replace meat by milk, cheese, Peas, Beans and Lentils, which are as rich in flesh-formers as meat and much cheaper. Use more vegetables! Eat more fruit!

Cook Vegetables by Steaming!—Boiling in water reduces their food value! Cook Potatoes in their skins! Use the Hay-box Cooker; it will save coal.

Use Less Coal!—Burn wood, peat, &c., whenever possible!

Save Fodder!—Use Acorns, Chestnuts and beech-mast for stock; Bracken for litter; all suitable straw for fodder; fodder crops for pigs. Keep pigs, poultry or rabbits to eat up house refuse, damaged vegetables, light corn!

Waste Nothing!—Buy nothing from abroad that can be produced at home!

BRACKEN AS LITTER.

IN view of the present high cost of feeding stuffs, it is necessary that as much as possible of their manurial value should be recovered in the manure. The fact that the ordinary supplies of potash are meanwhile cut off furnishes another reason for preserving manure, especially liquid manure, with great care; liquid manure is rich in potash. In districts, therefore, where straw is scarce, or where it can be profitably fed to stock, farmers and horse-keepers should use for litter any other suitable material that may be available at a reasonable cost. Bracken or "Fern" is specially worthy of attention at the present time.

Bracken possesses considerable value as litter, and in many places it may be obtained for the cost of cutting and carting. Bracken harvested while still green usually contains as much phosphoric acid as straw, and much more nitrogen, but less potash. If exposed to rain throughout the winter, a considerable loss of substance is likely to result, although Bracken cut in April has been found, on analysis, to have a similar composition to straw.

Bracken possesses a considerable power of absorbing ammonia and urine. To secure the full absorptive effect, however, Bracken must be very thoroughly trampled upon by stock.

Manure made from Bracken may be expected to be equal in chemical composition to manure made from straw. On the other hand, it takes longer to decompose in the soil, the fibrous woody stem being only slowly attacked. It therefore opens up the soil more, and is for that reason likely to be more useful on a heavy clay than on a light, sandy soil. Bracken should be cut and dried in autumn.

ANSWERS TO CORRESPONDENTS.

FLOWER GARDEN.

VIOLA PRIMULÆFOLIA AND UNOPENED FLOWERS (E. B.).—The flowers that never open borne by the Violets are quite common in many species, and are known as cleistogamous flowers. They usually produce quite fertile seeds, and are formed, as a rule, in the later part of the year, after the normal flowers are over. The ordinary flowers of some Violets do not seed, or but rarely, and these cleistogamous flowers are formed for the purpose of ensuring seed production. Possibly removing the plants to a rather more open situation would induce them to flower in the spring.

PROPAGATING BULBS (Frances Mary Glossop).—Unfortunately, you omit to say to what class of bulbs you refer, but, assuming it to be the Daffodil, you could plant all the smaller divisions or offsets in a reserve plot or in a nursery bed in lines, where, in well-cultivated soil, they would be safe for two years at least. Arrange the bulbs an inch or 2 inches apart, the lines 9 inches or a foot asunder. If they are Tulips, a more sandy soil would be required, with annual lifting and resting. Should the above not apply, please write us again and say exactly to what bulbs you refer.

OXALIS ENNEAPHYLLA AND LINARIA (James Paterson).—It is very unusual for the Oxalis to be flowering so late and in the good condition to which you refer, and we are wondering whether it is the outcome and development of a spring planting or a second flowering. If the latter, it is more unusual still. The Linaria usually behaves like a biennial, unless it is in the poorest of soils, adjacent to rocks, or springing up in a gravel path, as it often does from self-sown seeds. In rock fissures it is often a good perennial, but in richer soils liable to die out quite suddenly. The Wulfenia delights in a cool nook in rather rich soil, and in such is quite tractable. We should consider soil poverty and dryness at the roots the chief reasons why the flowers did not develop. Try the plant in richer soil—peat, leaf-mould and loam equally—and in a cool or slightly moist place.

ROSE GARDEN.

ROOT-PRUNING ROSES (Rose).—Most certainly we should advise you to transplant the bushes. Whenever Roses appear to be declining in vigour, be they bushes or standards, they should be transplanted, and as early in October as the state of the soil will permit. You should have the plants dug up, all the foliage removed, and cut back hard any soft shoots. Prune the roots back fairly hard, preserving as many of the small fibrous roots as possible. Then put the plants in a trench, cover the roots well with soil, and give a good watering. If this trench is in the shade, so much the better. Proceed next to overhaul the Rose-beds, digging them 2 feet to 3 feet deep, and work into the lower soil good manure, basic slag, and any burnt garden refuse you may have. A little well-rotted manure may be mixed with the top foot of soil. After allowing the beds to settle down for about ten days, replant the Roses, giving each plant a handful of bone-flour just beneath the surface soil and well scattering it about. We thank you for your sympathetic reference to our late Editor, who always studied to the full extent of his power the best interests of readers.

MISCELLANEOUS.

INSECT ATTACKING LEAVES OF THE SWEET CHESTNUT (H. T.).—The Sweet Chestnut foliage is attacked by one of the leaf-mining caterpillars, which later become minute moths. We do not anticipate serious injury from the attack, nor do we think spraying would alleviate it. It would be well, if the trees are small, to collect the attacked leaves and burn them, as this would be likely to reduce the trouble another year.

SHORTAGE OF FARMYARD MANURE (S. O. R.).—We quite appreciate your difficulty in the shortage of farmyard manure, and with so many horses at the front there appears little likelihood of getting a supply for some time to come. We certainly cannot recommend the use of so-called radium manures. They have given negative results in experiments. As a substitute for farmyard manure you will find Wakeley's Hop Manure of good value. It is a natural manure specially treated with artificial fertilisers. It is concentrated, and needs only to be applied as a very light dressing.

NAMES OF PLANTS.—W. Hanna.—1, Aster Novi-Belgii Perry's Pink; 2, Aster Novæ-Angliæ, type probably—such things are almost impossible to name correctly from a solitary flower-head; 3, Aster Novæ-Angliæ roseus. There are several good firms in the county you name who could supply plants, though for modern sorts a specialist would be best.

NAMES OF FRUIT.—F. H. Bull.—1, Ecklinville; 2, Stamford Pippin.—H. J. S.—Apples: 1, Newton Wonder; 2 and 3, Hawthornden; 4, Lamb Abbey Pearmain; 5, Cellini. Pears: 1, Brown Beurré; 2, Easter Beurré; 3, Bergamotte Espéren; 4, Winter Nelis.—Pollo, Ross-shire.—1, Warner's King; 2, Withington Fillbasket; 3, Worcester Pearmain; 4, Beauty of Bath; 5, Ecklinville; 6, Lord Grosvenor; 7, Duchess of Oldenburg; 8, not included; 9, Yorkshire Beauty; 10, Christmas Pearmain; 11, Wyken Pippin; 12, Devonshire Quarrenden.

OBITUARY.

C. F. BALL.

MR. C. F. BALL, who in times of peace held the position of assistant keeper of the Royal Botanic Gardens, Glasnevin, Dublin, has, we are extremely sorry to learn, been killed in the Dardanelles. At the outbreak of war he joined the D (Pals) Company of the 7th Royal Dublin Fusiliers. A life full of promise and still in the vigour of youth has been given for his country and in the cause of justice. All honour to his memory. Four years ago, Mr. Ball, accompanied by the writer of these notes, journeyed to Bulgaria for the purpose of visiting the famous Rose garden of Europe, and to collect plants from the Balkan mountains and Rhodope Alps. He was a delightful companion, unassuming, sincere, and a most lovable man. Seldom did any plants of interest escape his



THE LATE C. F. BALL.

keen and well-trained eye. I well remember how, one day on the Shipka Pass, his face brightened with delight on finding the rare albino form of *Haberlea rhodopensis*. As the result of his travels Mr. Ball read a very interesting paper before the Royal Horticultural Society on the flora of Bulgaria and the Maritime Alps, illustrated by lantern slides prepared from many of his own photographs. Mr. Ball occasionally contributed notes to these pages on hardy plants at Glasnevin, and for the past five years he successfully edited *Irish Gardening*. For three and a half years he worked at Messrs. Barron and Son's, Elvaston, Derby, and he was later employed in Messrs. Barr and Sons' nursery at Long Ditton. He entered Kew in 1900, and left in 1906, after working in the rock garden and herbaceous grounds. He was immensely popular, and commanded a good deal of respect as an athlete as well as a student. His loss is made the more pathetic since he was married only a few months ago, and to his widow we extend our sincere and heartfelt sympathy.

SOCIETIES.

READING AND DISTRICT GARDENERS' ASSOCIATION.

THE first meeting of the autumn session was held on October 4 in the Abbey Hall (by kind permission of Messrs. Sutton and Sons), and was well attended. The president, Mr. F. B. Parfitt, presided, and was supported by the chairman and vice-chairman (Mr. H. Goodger, Stotham House Gardens, and Mr. E. Blackwell, Foxhill Gardens). The subject for the evening was "The Recent Visit to Bear Wood Gardens," and a very interesting discussion took place on many of the crops noticed, such as Grape Melons, Tomatoes, Peas growing under glass, and Caul flowers; also Sweet Peas in pots for flowering early in the season, and blight and silver-leaf on Plums. Much valuable information was given by Mr. J. T. Tubby, head-gardener, Bear Wood Gardens, in answering the various questions put by the members. Owing to the resignation of Mr. Lawrence Castle from the office of hon. secretary, Mr. H. G. Cox of 80, Hamilton Road has been appointed his successor.

GLASGOW AND WEST OF SCOTLAND HORTICULTURAL SOCIETY.

A LECTURE arranged by this society was held in the Religious Institution Rooms, Glasgow, on the evening of October 6. Mr. D. G. Purdie, chairman of directors, presided over a good attendance. The lecture of the evening was given by Mr. John Highgate, gardener to the Marquis of Linlithgow, Hopetoun House, South Queensferry. Mr. Highgate's subject was "The Use of Perennial Plants in the Embellishment of Present-day Gardens." It was dealt with in an exhaustive and attractive manner by Mr. Highgate, as may be expected from one who is doing such good work in this way in the noble gardens under his charge, where hardy perennials are utilised in a magnificent way. Mr. Highgate discussed his subject very fully, and gave many details regarding suitable plants, selecting for special prominence a number of effective and useful subjects of a bold character, as well as those of dwarf habit. Alpines were recommended for edgings. Mr. Highgate also strongly advocated the planting of flowers which would give a supply of bloom over as extended a period as possible. He spoke warmly in favour of planting in clumps. The lecture was illustrated by a number of excellent views. Mr. Highgate was heartily thanked.

NATIONAL SWEET PEA SOCIETY.

THE annual general meeting of this society was held on October 11 at the Royal Horticultural Society's Hall, Vincent Square, Westminster. The meeting was presided over by Mr. E. H. Christy, chairman of committee. From the report of the committee it is apparent that the war has seriously affected the society. Though eighty-three new members have joined, seventy actual resignations have been received, four gone away and three deceased, while many of the affiliated societies are unable to continue their membership, but two new ones have joined. Many subscriptions from members for 1915 are unpaid, but it is still hoped that some of these will come in.

The Trials were held as usual. Mr. Reginald W. Christy of Boyton Hall, Roxwell, near Chelmsford, was appointed Trials Superintendent, and grew the stocks there. The committee are to be congratulated on their choice, for a finer set of trials has never been grown for the society. The plants were healthy, robust and even, and not a weed was to be seen. Heartly thanks to Mr. Christy and his daughter, who has been his right hand, were enthusiastically expressed.

The Society's Roll of Honour.—Among those serving their King and country are many members of the society and the following members of the committee, viz., Captain Vernon T. Hill, Major Martin F. Hitchings, A. L. F. Cook, N. S. Thornton, B. Peyman and E. J. Gee. Among the fallen is Major Cautley D.S.O., who was killed in action.

Finance.—The report concludes: "Undoubtedly the war has had a great deal to do with the financial side of the society this year. We have had a great drop in the amount paid in for members' subscriptions. Last year we received £291 15s. 5d.; for 1915, £209 16s. 9d.; and from the affiliated societies the amount received in 1914 was £62 4s.; for 1915 we have only received £28 7s. These losses in themselves are a serious matter for the society. The gate money for the London show, 1915, was £13 5s. 6d. against £19 19s. in 1914. The committee recognised at the outset of the year that we might expect some falling off as a natural consequence of the critical times, and, in endeavouring to guard against this, economised in every department where it was possible, as the financial statement will show."

Election of Officers.—On the proposition of Mr. J. S. Brunton, seconded by Mr. A. Ireland, Mr. E. W. King was unanimously elected president for the ensuing year. Mr. J. S. Brunton was elected chairman, Mr. E. Sherwood re-elected treasurer, and Mr. H. D. Tigwell re-elected secretary of the society. The new members of the general committee are Messrs. A. C. Bartlett, Herbert Cowley, G. H. Burt and E. H. Christy. Messrs. R. Bolton, Carnforth, and J. Malcolm, Dunbar, were added to the provincial corresponding members of committee, while the following specialists comprise the new floral committee: Messrs. A. Ireland, T. Jones, G. H. Burt, T. Stevenson, T. A. Weston, E. H. Christy, C. H. Curtis, A. Malcolm and A. Hallam.

THE GARDEN.

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OCTOBER 23, 1915.

NOTES OF THE WEEK.

New Rose Hadley.—The standard of the ideal Rose has been much advanced during the last decade. Roses which flower well in autumn are among the most popular, and Hadley proved its worth in this direction by securing the award of merit from the Royal Horticultural Society on September 28 for flowers cut in the open, when it was exhibited by Messrs. Stuart Low and Co. of Bush Hill Park. The photograph from which our illustration was prepared is of flowers cut during October. It is a strong grower, free flowering, and is, indeed, of stronger and improved Richmond habit. It is much deeper in colour, being of a maroon crimson shade, almost as dark as Château de Clos Vougeot. The illustration shows that Hadley has good form; if it could depict its perfume, it would be very sweet indeed. It has more of the Damask scent than is even found in the famous General Macarthur. It is a curious fact that many of our best forcing Roses have been discovered in America. Ophelia, for instance, a British-raised variety, was found to be a splendid forcer by growers in the United States. Hadley is a Rose which has also proved its worth as a fine variety for forcing in the same country.

An Effective Bedding Arrangement. A series of oblong beds in Princes Street Gardens, Edinburgh, have, during the past summer, had a very pleasing effect with the following arrangement: A groundwork of Viola Maggie Mott dotted with Centaurea ragusina and edged with Lobelia Waverley Blue, the whole being thinly dotted with a medium height dark Fuchsia and Lobelia cardinalis Queen Victoria.

Senecio Clivorum.—This is a most useful plant for massing in the wild garden, especially on the banks of pools or streams. It is easily raised from seed or by the division of old plants. When once established, seedlings will be found springing up wherever old plants have flowered. These may be dug up and replanted in suitable places, but it is a gross-feeding plant and needs a moist situation to grow it to perfection.

A Rare Oak.—*Quercus pontica*, the Armenian Oak, is a distinct-looking species from North-East Armenia and the Caucasus. The present habit of growth suggests that it is a large shrub or spreading tree of moderate height. It is deciduous and the leaves are large, being up to 7 inches in length and $3\frac{1}{2}$ inches broad at the widest part, on plants 3 feet in height. As an ornamental specimen tree

the Armenian Oak will doubtless prove of real value and interest for the lawn and pleasure grounds.

October Roses at Kew.—Owing to the mild autumn, the beds of Roses around the Palm House at Kew are still (October 18) exceptionally bright with blooms of good quality. Hybrid Teas are well to the fore, and among the best of them are Lady Pirrie, La Tosca, Caroline Testout, Pharisæer, Mme. Ravary, Lady Hillingdon, Liberty, La

literally smothered in bloom. Mrs. R. G. Sharman Crawford and Frau Karl Druschki or Snow Queen are the pick of the Hybrid Perpetuals, and William Allen Richardson (Noisette) is likewise flowering in profusion. In many gardens Gloire de Dijon, the sweetest of all climbing Tea Roses, is flowering as well now as in the days of June.

Pear Louise Bonne of Jersey.—This is an excellent Pear for large or small gardens, as it succeeds in so many forms of training. On a south wall, trained horizontally, as an espalier, as a cordon in the open, and, above all, as a bush, it succeeds admirably. Of vigorous yet not rampant growth, it crops freely, and with judicious thinning of the fruit handsome specimens are easily obtained. Like all Pear trees, extra attention is needed in the matter of mulching during dry weather, and if given copious supplies of sewage or liquid manure the fruit swells rapidly and colours richly. This Pear was raised about the year 1788 by M. Longueval at Avranches.—E. M.

A Beautiful Blue Greenhouse Flower. *Lisianthus russellianus*, sometimes known as *Eustoma russelliana*, is one of the most beautiful of greenhouse flowers, although a plant that is very rarely met with now. At one time grand specimens of it were exhibited, and being somewhat particular in its requirements, it was looked upon as a good test of the cultivator's ability. In these days, however, when there are so many fine subjects which can be grown with comparative ease, plants that require special management do not find sufficient favour.

A Beautiful Periwinkle.—We were very much attracted recently by a fine mass of *Vinca difformis* growing under a large Pine in Canon Ellacombe's garden at Bitton, where it has been growing for a long time. It still produces freely its beautiful blue flowers, and will continue to do so while the weather remains mild. It is a native of Western and Central Mediterranean regions, where it is found in moist and shady places, but

it is seldom met with in cultivation, due, undoubtedly, to the fact that it is not so hardy as the well-known Periwinkles. It is a valuable plant for greenhouse decoration, where it will keep up its succession of flowers during the dull months of the year. It is readily increased by means of firm woody cuttings, and requires to be cut back in the spring to keep it compact.



OCTOBER BLOOMS OF HADLEY, A DEEP CRIMSON AND SWEETLY FRAGRANT ROSE.

France, Mrs. Herbert Stevens, Lady Ashtown, Mrs. A. R. Waddell, Cherry Page and Mme. Abel Chatenay. Gustave Regis, often regarded as the best of autumn Roses, has now passed out of bloom. Of the Tea Roses, Mme. Lambard, Antoine Mari, Souvenir de Pierre Notting and General Schablikine are all flowering well; while Orleans and Jessie, both Dwarf Polyanthas, are

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

An Autumn Bee Flower: *Sedum spectabile*.

A propos the note by E. T. Ellis regarding this, on page 492, October 9, I may remark that *Sedum spectabile* has toxic effects on bees, and that many of those which go to it in search of honey become so stupefied that they cannot fly away, and succumb.—S. ARNOTT.

Club in Cabbage.—"B., Weybridge," should try Pestite, a proprietary compound manufactured by Messrs. Lang and Sons, Limited, Hounslow, W., and used largely, if not solely, by market growers. The firm will readily supply information regarding Pestite, of which there are many proofs of its wonderful efficacy as a preventive of club root in Brassicas. Personally, I am not worried by club, but I have proved the

and the soil trodden firmly about the cuttings, they will make good growth the next summer and an abundance of roots, and should be replanted the following spring. Sharp frost is often the means of loosening the soil about the cuttings, which, if not made firm again after a thaw, is often the cause of a bad "strike." A mulch of coal-ashes 2 inches thick between the rows will do much to prevent the upheaval of the cuttings.—E. M.

Japanese Windflowers.—"R. P.'s" reference on page 497 to Japanese Anemones invites me to draw your readers' attention to the variety Mont Rose, a large bed of which has been in full flower here for the last six weeks, and its beauty is so striking that it prompts one to urge its more extended planting. This variety received an award of merit from the Royal Horticultural Society in 1900, when a small basketful was shown by Messrs. Paul and Son at the old Drill Hall. It is generally described as dwarf, but this season the flower-stems have been 3 feet high, and the

contradict himself, inasmuch as he says that the correct name of any plant is that which was first given it. To this, within reason, I entirely agree. Then he goes on to say that botanists are perfectly justified in giving new names where circumstances warrant it. To this, of course, no exception can be taken, as we are continually learning; but my original note was against the persistent chopping and changing of names, in which, by the way, botanists are not always in agreement.

I was not aware of my insular prejudice, and certainly did not once dream of letting the same plant have a different botanical name in every country of Europe. I, however, do protest against acknowledging the complete reversal of the names of Ferns, which, supported by botanists of long standing and recognised all the world over, are completely upset by the conclusions to which one single individual has arrived. With regard to the name of *Matteuccia*, why not have allowed the generic name of *Onoclea* or *Struthiopteris* to remain instead of coining a new word?

Returning once more to the question of the first name given to the plant being the correct one, there are, of course, limitations to this. For instance, the delightful *Magnolia grandiflora* was, I believe, first given the specific name of *foetida*, as the flowers were received in a state of decay. There was an attempt to revive this totally inappropriate name some years ago in the United States, but, fortunately, it is not recognised in this country.

Next, anyone acquainted with our own native Hawthorn is aware that when raised from seeds a vast number of distinct kinds can be picked out, yet they are all, and rightly so, looked upon as forms of one species. In North America, on the other hand, so rich in members of the Thorn family, every individual variation from the type is regarded as a species, backed up, too, by one of the greatest authorities on the Western Continent. The words on this point by Mr. Bean in his invaluable work, "Trees and Shrubs Hardy in the British Isles," may as an appropriate conclusion be herewith quoted. The author says: "There has lately arisen a school of workers, with a strong following on the Continent and in the United States, whose aim is to subdivide species, genera and Natural Orders to the fullest extent. While much of this is, no doubt, the result of a closer study and a more critical insight than the older men practised, some of it seems to represent a desire of change for change's sake. At any rate, if adopted in its entirety, it would involve such confusion and readjustment of nomenclature as to render its acceptance by cultivators in the last degree unlikely in this country."—H. P.

Covered Chains for Roses.—As far as my experience extends, iron chains are not injurious to climbing Roses. Of course, if the chains were galvanised, the acid therein would, as in the case of galvanised wire, be liable to damage the shoots. This trouble can, however, be easily obviated by giving the iron two or three coats of good lead paint; indeed, I should be inclined to treat ordinary wrought iron chains in a similar manner before placing them in position.—T. K.

—The subject of covered chains for Roses, upon which you invite correspondence on page 480, cannot well be divorced from the general question of the use of metal in other forms. This is a question which has interested me for many years,



ANEMONE JAPONICA CRISTATA WITH SOFT PINK FLOWERS AND CRESTED FOLIAGE.

usefulness of Pestite as an insect destroyer. The powder merely requires digging in. Its cost is 9s. a hundredweight, sufficient for nearly half an acre.—T. A. W.

Propagating Shrubs.—The note on this subject, page 491, October 9, is opportune. Many desirable subjects can be increased easily with but a minimum of trouble and hardly any expense. Mention is made of Laurels; these can be rapidly increased, but I have seen many failures even with so common a shrub as this, owing to taking the wrong type of cutting—the soft top of the current season's growth, without securing with each a "heel," a piece of last year's wood, at the base of the cutting. In taking cuttings of Laurels, it is wise to slip them off by giving a sharp tug in a downward direction, which secures with each cutting a "heel" attached to the current season's shoot, some 8 inches or 10 inches long. If these are firmly inserted 4 inches apart in a trench 4 inches deep, with a base of sand or road grit,

whole bed crowded with spikes and smothered with large, semi-double pink flowers, the florets of which, being very much cut up and divided, give the flowers a light appearance.—R. W. W., Colchester.

—*A propos* the recent correspondence on Japanese Windflowers, I would like to draw attention to *Anemone japonica cristata*. This is among the most striking and useful plants cultivated in the herbaceous border, and always arrests attention. As its name implies, the foliage is quite unlike an ordinary Anemone, being beautifully crested, much resembling some of the crested *Scolopendrium* Ferns, which turn a beautiful colour during late autumn. At this season of the year it flowers profusely, the colour being a beautiful soft pink.—E. BECKETT, Aldenham House Gardens, Elstree.

Changing the Botanical Names of Plants.—In his criticism of my note on this subject, your correspondent Mr. W. R. Dykes, page 492, seems to

and about which I have from time to time received much information in gardens I have visited. All my Roses are grown on wood or against stone, but I have found some of them quite safe if attached to wires or wire netting against a wall. This is only reliable in the case of the hardiest Roses, such as the Ayrshires and kindred subjects. In some places, however, where Roses are wired against walls, it has been found necessary to see that the wires are kept painted. Chains, if left uncovered, are certainly injurious in many places, although this depends a good deal upon the climate.

Some experienced growers I have known have shown me the difference between Roses planted at the same time, but some on bare chains and others on the same covered with rope. The latter looked much healthier as a rule, and had made considerably more progress. I should certainly consider that chains covered with sections of Bamboo or wood would be much better than those left uncovered. I know some good gardeners who now eschew chains and use nothing but rope, although this requires renewal from time to time. Roses on iron arches are frequently much injured by frost, and I have in mind a certain garden where even the more free-growing Roses were so badly crippled by being grown on iron arches that the latter had to be abandoned.

There is, however, a method of forming metal Rose arches which is worth consideration, although I am only suggesting it from the experience of one of the keenest and most experienced gardeners of my acquaintance, and one of the best informed of my rosarian friends. This is to build up the



A BED OF ROSE PHARISAER.

arches with hollow iron tubes—virtually iron piping about an inch in diameter—firmly attached by means of wire. Tasteful arches may be built up in this way, and my friend assures me that he has never had his Roses injured on such arches, which he has used for a number of years. Certainly the Roses he grows on these tubular arches are always in the pink of condition, and I have seen them frequently for several years. I suppose the idea is that the current of air passing through the tubes prevents them from changing their temperature too rapidly. The point raised is an important one, especially for those who cultivate many Roses on pillars and arches, and who find the renewal of these a troublesome and often difficult matter. By the way, a good “tip” for those planting pillar Roses is to place the butt of the post in the section of a drain-pipe. If this is done, the decayed post may be removed from the pipe and a new one put in without much disturbance of the Rose and with comparative ease.—S. ARNOTT.

The “Lily of the Field.”—In the interesting account of the Sternbergias that appears in THE GARDEN of October 2, page 481, the writer repeats a statement often made, to the effect that “*S. lutea* is the supposed Lily of the Field of Scripture”; but it is agreed now, I think by all the best authorities, that the Biblical Lily of the Field is *Anemone coronaria*, which is perhaps the commonest, and at the same time the most gorgeous, flower in Palestine. Its usual hue is a bright scarlet,

surpassing the colour of the robes of “Solomon in all his glory.” It may interest some to know that the Rose of Sharon, also mentioned in the Bible, is thought to be *Crocus Gaillardoti*. The Hebrew word distinctly means a bulbous plant. These two flowers are those most sought after by pilgrims, and I have dried specimens by me as I write.—R. M., Hertford.

WILD AND CULTIVATED ROSE HIPS.

IN the reign of Richard II. Rose hips were used, with red wine, sugar, hot spices and blanched Almonds, for the making of Saracen sauce, and in the seventeenth century they were extensively used for making tarts. Compote of Rose hips is still said to be sold by the bucketful in Continental markets, but in this country their economic use has been entirely lost. To-day we treasure the brightly coloured Rose hips in autumn because they are so pleasing to the eye, but the time may again come when the Rose hips of our lanes and hedgerows may, after the removal of the seeds and hairs, be as much sought after as Blackberries. There is a variety of the wild Dog Rose that has long, arching branches with showers of bright red hips. It is known as *Rosa canina subcristata*, and it looks extremely pretty if planted in the wild garden, especially when growing near to the water's edge. *Rosa alpina lucida*, the Sweet Briar, and Janet's Pride also carry a plentiful supply of hips that look very pleasing at this time of the year. But the finest of all the Rose hips are those of *Rosa Moyesii*, a comparatively new species from the mountains of Western China, where it is found at an altitude of between 7,000 feet and 9,000 feet. The blooms, which appear in June, are of a peculiarly rich shade of red, and they are succeeded by large pear-shaped, orange red hips, some of them over 2 inches long. Other Roses worth growing for their hips are *Rosa pomifera*, with deep red gooseberry-like fruits; *R. atropurpurea*, smooth red fruits with hairy stems and purple-hued foliage; *R. rugosa alba*, with hips rather larger and brighter in colour; and *R. rubrifolia*, with deep crimson hips borne in large clusters, the foliage being a delightful grey in colour.

C. Q.



A FRUITING SPRAY OF ROSA MOYESII.

NEW AND RARE PLANTS.

AWARDS OF MERIT.

Rubus Veitchii.—Quite a remarkable species, having spiny growths furnished with pinnate-acuminate leaves 3 inches or so long, silvery glaucous above and whitish beneath. The flowers

for a long time. The colour is deep salmon pink, uniform throughout the flower. It should make an excellent market variety. Shown by Messrs. Stuart Low and Co., Enfield.

Cattleya Ajax Primrose Dame (Cattleya Armstrongæ × C. aurea).—Sepals and petals primrose yellow, the heavily fringed lip pale prim-



GENTIANA ORNATA, A LITTLE-KNOWN SPECIES WITH INTENSE BLUE FLOWERS.

are pink and double, and not very freely produced. As a foliage plant it is quite ornamental. From Messrs. Piper, Bayswater.

Rose Mrs. John Foster (H.T.).—This is a new seedling and was shown in capital form. Raised from Richmond and Alfred Colomb—the former the seed parent—it is similar in colour to George C. Waud, of rich vermilion hue, the flowers sweetly scented. It promises well, both as a garden and exhibition variety. Exhibited by the raiser, Mr. Elisha J. Hicks, Hurst, Berks.

Crocus pulchellus albus.—A pure white form of great beauty. The cupped blossoms have quite rounded segments, which are also of great substance. The purity of the flowers is somewhat relieved by a slight yellow base. From Messrs. Barr and Sons, Covent Garden, W.C., and Mr. G. Reuthe, Keston.

Gentiana ornata.—A very beautiful species was shown under this name, the award subject to its being verified. The handsome flowers are sessile, erect, nearly as large as *G. acaulis*, tube slightly inflated, and striated white externally. The lobes are intensely blue. Quite a dwarf plant, with acute glossy foliage on somewhat creeping stems.

Scelopendrium vulgare plumosum.—A highly decorative form with heavily crested margins and tasselled ends. It is of handsome proportions.

Aster Amellus Mrs. Perry.—A quite new shade of colour in the Italian Starworts, the flower-heads being of reddish violet. It is of capital form. These three were from Mr. Amos Perry, Enfield.

Carnation Alice.—Quite one of the best and shapeliest Perpetual-flowering Carnations seen

rose at the margin, succeeded by deep yellow, the tube of brownish crimson with gold lines. From Messrs. Armstrong and Brown, Tunbridge Wells.

CARD OF APPRECIATION.

Odontoglossum Victory (*O. crispum* The Baroness crossed with an *Odontoglossum* hybrid of unknown parentage).—A card of appreciation was given to this shapely, well-marked variety. It is characterised by huge red blotches and margined lilac white. The lip is white fringed. It is one of the most perfect forms yet seen. From Messrs. Armstrong and Brown.

The whole of the foregoing plants were before the Royal Horticultural Society on the 12th inst., when the awards were made.

NEW DAHLIAS.

Rainbow (Collarette).—The colour is rose, with yellow centre. Shown by Mr. J. B. Jarrett, Anerley Road, S.E.

Anna Louise (Collarette).—Of ruby red colouring and very good form. From Mr. J. B. Riding, Chingford, Essex.

Leviathan (Decorative).—A distinct and good form, in which orange salmon and terra-cotta mingle, the dominant colour being orange. From Messrs. J. Stredwick and Sons, St. Leonards.

These Dahlias, having been adjudicated upon by a joint committee of the Royal Horticultural Society and the National Dahlia Society, carry the award of merit of the former and first-class certificate of the latter.

THE PREPARATION OF BEDS FOR ROSES.

EACH year, as the cultivation of Roses becomes better understood, more importance is being attached to the preparation of the soil in which they are to be planted. All good growers now realise that it is well-nigh im-

possible, except under natural conditions that are particularly favourable, to grow Roses of good quality unless the soil has been previously well and deeply tilled, drained and manured. Unfortunately, many would-be Rose-growers have little, if any, choice of site. They must, perforce, make the best of existing circumstances; and as November is the principal month of the year for planting, a few hints concerning the preparation of the beds may be useful.

For all practical purposes, soils may be roughly divided into two sections, viz., those in which clay predominates, and known in garden parlance as heavy soils, and those in which we find a preponderance of sand, chalk or flints, and known as light soils. In a few instances there may be gardens the soil of which cannot, even by a stretch of imagination, be classed in either of the above categories, but such are seldom met with. Generally speaking, heavy soil is the best for Roses, unctuous clay, which is difficult to till, but which improves greatly by working, suiting all the strong-growing kinds to perfection. Where this naturally abounds, it is practically certain that artificial drainage of some kind will be necessary before the successful cultivation of Roses can be undertaken. Undoubtedly the ideal plan under such circumstances is to lay pipe drains about 2 feet below the surface, and so drain the whole area. Where an outlet at a sufficiently low level is obtainable, this is not a very difficult task, and has the merit of being comparatively permanent.

On the other hand, the soil, though wet, may not be sufficiently so to demand pipe drains, and here it is that deep tilling and judicious manuring are brought into play. The soil ought to be trenched to a depth of not less than 2½ feet, keeping the bottom soil in its original stratum, but mixing with it a liberal supply of rather long, partially decayed stable manure, or that from a farmyard in which horses only have been kept. This manure has a lightening effect on the subsoil, and may come to within 9 inches or a foot of the surface. Not only will it provide food for the Roses, but it will very largely bring about that free drainage so much desired. With the top 9 inches or 12 inches mix quarter-inch crushed bones, wood-ashes, a little old mortar, or scrapings from a country road not frequented by motors. This will render it more friable and in better condition for planting. Beds formed in such soil as this are best raised 9 inches above the surrounding level. Heavy soils are best adapted for Roses budded on seedling Briar stocks, though other stocks do very well if thorough drainage is secured.

Unlike heavy soils, those which come under our second heading call for a large amount of ingenuity and skill if we would have Roses of the finest quality. Here, again, deep tilling must be adopted, not for the purpose of drainage, but, paradoxical as it may seem, to conserve moisture. In heavy soils it is water that descends from the surface that we wish to get rid of; in light soils it is the moisture that rises from the bowels of

the earth, by capillary attraction, that we wish to conserve, deep cultivation in both instances affecting these ends. But it is not only the breaking up of the soil where it is poor and light that must be attended to. Rich soil of a retentive texture must be added to the top spit, and manure put with that below. Here stable or horse manure would be of little use; that from the pigsties or cowsheds must be used in abundance, and it ought to be as short and decayed as possible. It will afford a cool and nourishing rooting medium for our Roses in the hot and trying days of summer. Where flints or rocks abound, these must, as far as possible, be taken out and replaced with the best soil obtainable. Where the subsoil, a foot or rather more below the surface, is almost pure sand, nothing can be done except to remove it to a depth of 2½ feet and replace it with good soil. This is, of course, a very costly process, and one that could not be carried out on a large scale; but if Roses are to be grown, it would be found more economical, and far more satisfactory, than planting bushes in soil that is entirely unsuitable, and in which they would be foredoomed to a lingering and unhappy existence. Beds in light soils are best sunk 6 inches or 9 inches below the ordinary level. Deep cultivation, with manuring suitable for the kind of soil that is being dealt with, are the synonyms to the initial and most important stage of Rose-growing, and it is only by the due observance of these that Roses of even moderately good quality can be obtained.

Planting, no matter whether the soil is heavy or light, ought not to be done until at least a fortnight after the beds have been trenched, so as to allow the soil time to settle down. In very stiff clay soil it is best to prepare the beds in autumn, leave the surface as rough as possible, and postpone the planting until the following March. The frosts and winds of winter have a mellowing effect on the soil and render it in much better condition for planting.

PERNETIANA ROSES DURING 1915.

THESE Roses have maintained their reputation in the usual glorious colours. During early summer and again in St. Martin's summer they are clothed in gorgeous array, vying with each other which is queen. My Pernetianas are in beds of thirty-six plants, and give a fair idea of the beauty of this new race.

Beauté de Lyon has bloomed beyond its reputation, both early and late. Rayon d'Or has quite left behind the weedy growth of its early days in England, and throws up thick shoots, with shimmering foliage crowned with large golden yellow blooms. Our old friend the Lyon Rose is as good as ever, looking on complacently while her children almost make her take a back seat. One of my successes has been Mme. Edouard Herriot, the *Daily Mail* Rose. From May until now (September 18) it has been one glorious mass of bloom, and promises to continue until King Frost sends it to rest. No garden can be complete without this wonderful Rose. Soleil d'Or, Soleil d'Angers, Rodophile Graveraux, Viscountess Enfield and Mme. Ruau have all bloomed well. So, too, have Johannesfeuer and Louis Barbier. The stately Juliet—pegged down, please—has been perfect.

Cissie Easlea has been another "great" Rose this year. Nothing small about this. All the shoots are thick with red thorns and shimmering foliage. The blooms are creamy yellow, tinged with fawn and faint carmine, after the style of growth of the charming Louise C. Breslau. Lady Mary Ward, Old Gold, Mrs. F. W. Vanderbilt, Arthur R. Goodwin and F. J. Barry seemed to have raced Mme. John Crouch and Marie Adelaide Grande Duchesse de Luxembourg, each of them full of beauty in its own particular way. Iona Herdman has never been out of bloom. It is a vivid Rayon d'Or yellow, not too full; long, delightful yellow buds, and beautiful in all stages. You must have

this. Mrs. George Beckwith is going to be a surprise to everyone.

Many doubtful rumours have been heard about Constance, but everyone should grow it. It is a great advance on Rayon d'Or. The long buds are streaked with crimson; it has a branching habit of growth, the usual red thorns and shimmering foliage. Now for the blooms. Several of mine before me at the moment are 5½ inches across. They are perfect in all stages of the bloom, even after the full perfection of shape has passed away. Plant Constance; you will like this, and it is constantly in bloom. Willowmere, Mrs. Charles E. Pearson and Autumn Tints must not be forgotten; they, too, have contributed their share of colour to the whole. The Rose year of 1915 has proved Mme. Edouard Herriot and Constance. Whatever other Roses you omit from your usual order, double and treble both of these.

I must not forget to add that a bed containing thirty-six plants of Persian Yellow was one of the greatest treats of the year; but as this variety only blooms once, it should be planted where a bed of it can act as a background of green to other varieties, or it will spoil the colour scheme of a Rose garden. Persian Yellow arrived in England early in the reign of Queen Victoria, and its manners and colour won the admiration of the rosarians of that day. Soleil d'Or and later on the Lyon Rose, members of Persian Yellow's family, were raised by M. Pernet-Ducher, and they proved to be the forerunners of the Pernetiana Roses.

EVELYN E. FARMER.



THE MUSK ROSE OR ROSA MOSCHATA, THE WILD BRIAR OF THE HIMALAYAS.

ROSES IN YORKSHIRE.

THE class of Roses known as "decorative" has received a great deal of attention during late years. The strides made in this direction are immense, and one has noticed that in a show of any size they are always well represented and universally admired. In my opinion, one of the finest and most delightful additions to the ranks of the "decorative" Rose is

Old Gold, truly a lovely and distinctive variety. I only planted this last autumn, but it has fulfilled all that the raisers claim for it. It is semi-double, a picture in the bud stage, old gold tinged with scarlet, paling off somewhat as the flower expands. The blooms are borne on strong, stiff stems; the foliage is very free from mildew; while it has a fine branching habit of growth. No one should fail to find room for it. It is a worthy companion to Irish Fireflame. Another "decorative" or garden Rose that must be mentioned here is

Hilda Richardson. Although not so effective as Old Gold in shape and style of bloom, yet its colour is very charming—a rosy lilac on white ground. It has a vigorous branching habit and is extremely free flowering, right on into the autumn; but to me its great charm is its delicious and powerful scent, which alone makes it worth growing, even if it suffered from every pest and defect known to rosarians. One cannot imagine a more refreshing odour than that from a bowl of this variety on the table, unless it be that from a Rose as yet but little known, but destined

surely to become a most popular variety. I refer, of course, to

Mrs. George Norwood, which, in addition to its soft pale pink (even more delicate in colour than Mrs. R. G. Sharman Crawford), carries with it a fascinating perfume that commends it to everybody. It must have a future for shape and perfume alone. This is another variety that one gives a repeat order for, even in war-time.

Louise Catherine Breslau is a comparatively new Rose (1912) that I much like. It belongs, of course, to the Pernetiana class, and is at home in the bed containing Lyon, its coppery orange and yellow tones according well with the better-known Rose. The buds are very choice—tones of coral red and chrome yellow, and the blooms last a very long time either when over-blown or in water. Its fault, if any, is its habit of growth, which is rather too horizontal. One of my discoveries this season has been

Elise Robichon, a veritable gem among climbers. Its colour is pinky buff in the bud state, opening to very pale blush, and the plant is continually in bloom. Its foliage is bold and glossy, and of the character of that of Alberic Barbier.

The one Rose that has disappointed me is

Earl of Warwick, a really beautiful Rose when well grown, but it does not seem to excel in this climate, and it is one to do without. Now that the planting season is approaching, we are going to experiment again, and hope the winds of Yorkshire will be kind to such varieties as H. V. Machin, Florence Forrester, Lady Mary Ward, Iona Herdman and others whose fair presence we impatiently await in our gardens.

Roundhay.

E. WATERS.

A BEAUTIFUL PILLAR ROSE.

For pillars or pergolas Ethel is one of the most delightful of all varieties. It is a seedling from Dorothy Perkins, raised three years ago by Mr. A. Turner, The Royal Nurseries, Slough. Its semi-double flowers, clear flesh pink in colour, are borne in large trusses in great profusion. Its vigorous habit of growth, and beautiful light green foliage bring to mind Dean Hole's famous tribute: "Pillar Roses, some rising here and there, like the proud standards of victorious troops; some meeting in graceful conjunction like our forefathers and foremothers in the stately minuet—bowing themselves like tall and subtle cavaliers into arches of courtesy." For table decoration it is specially to be recommended, for the flowers light up admirably under artificial light. Few Roses are so well adapted for making weeping



MR. AND MRS. MAWLEY AT HOME IN THEIR ROSE GARDEN.

COLOURED PLATE.

PLATE 1504.

THE SINGLE ROSE PRINCESS MARY.

SINGLE Roses invariably possess a charm peculiar to themselves. The wild Roses of our hedgerows, which were so glorious in the month of June, are now radiant with their arching sprays of scarlet hips, and a source of admiration to naturalist and rosarian alike. In the new seedling Rose Princess Mary we have a gem of the first water that stands unrivalled in its rich deep crimson colour. The flowers are large, with bright golden anthers that stand out in gorgeous contrast to the lovely velvety sheen on the upper side of the petals. It is indeed a flower of a most refined finish, and, beyond all, it possesses in a high degree the precious gift of fragrance. Moreover, it flowers over a very long season, for it is almost as gay with flowers now as it was in the days of June. In growth it is fairly compact and upright. It is a capital bedding Rose, and also makes a good standard. It may come as a surprise to many to learn that it is the result of a cross between Richmond and J. B. Clark, both crimson Hybrid Teas, it is true, but both have full blooms and bear no resemblance to the five-petalled Princess Mary. Like most single Roses, the colour of the flowers is better on the growing plants than it is in the cut state. The foliage is dark green, and we believe it to be practically mildew-proof, which should add considerably to its value. Our coloured plate is prepared from blooms kindly supplied by the raiser, Mr. Elisha J. Hicks of Hurst, Berks, who is to be heartily congratulated on his production.



PILLARS OF THE NEW ROSE ETHEL.

ROSES ON WALLS.

By EDWARD MAWLEY, V.M.H., PRESIDENT OF
THE NATIONAL ROSE SOCIETY.

HERE are few ways in which climbing Roses can be set off to better advantage than when planted against a wall, and lucky are those Rose-lovers who have such walls on which to train them. When I came to Berkhamsted thirty years ago, I found a high wall at the top of the kitchen garden, facing south. On this wall were trained a few old fruit trees, and I must

itself justice. About eight years ago there was sent me from Australia a plant of Climbing White Maman Cochet, which I was delighted to have. I planted it among the Teas in the upper and warmer part of the Rose garden, and it was given every attention. But although it made excellent growth and became quite a big bush, it never flowered. Last autumn the idea occurred to me to transfer it to the south wall in the kitchen garden I have just mentioned, and, greatly to my surprise and delight, it has this year flowered splendidly.

But to turn now to the real object of this article, which is to try to give some idea as to the best

the year. Besides being continuous flowering, a good climbing Rose should be sufficiently hardy and as little subject to mildew as possible. Then there are certain kinds which will thrive in the broiling sun better than others, and others, again, that will even present a fairly gay appearance on a north wall.

To take the latter position first; that is to say, the best varieties to plant against a wall facing north. These are few in number. First, I should place the old and tried friend which I have just described, Bennett's Seedling. This, as I have shown, is by no means continuous flowering; but if planted in conjunction with Climbing Aimée



A WEALTH OF BLOSSOM IN A HIGH HEDGE OF CLIMBING WICHURIANA ROSES.

needs regard it as the proper thing to do and accordingly added to this collection, with the result that I have had reason to regret doing so ever since, for the yield of fruit has been very precarious, and at no time worth the splendid wall space devoted to it. I, however, did manage to work in two Roses, a Gloire de Dijon and a Bouquet d'Or, which it has been a pleasure to look upon ever since. This year, notwithstanding their age, they have flowered remarkably well and continuously.

Then, again, it is wonderful how a warm wall will often influence a shy-blooming variety to do

Roses to grow on walls of different aspects, whether they be house walls or garden walls of different heights. In the first place, a decided preference should be given to those varieties which are continuous flowering. To give an instance from my own garden. I have a Bennett's Seedling growing on my house, which, when in flower, eclipses every other Rose I have, for when fully out its fragrant trusses form one unbroken sheet of pure white from the roof to the ground and from one end of the front to the other. But, alas! that splendid sheet of white Roses lasts but a few weeks, and then its glory is over for

Vibert, the latter would start flowering after my friend had finished his burst of bloom for the year, care being taken that they are kept fairly well apart. Gloire de Dijon, which is one of the most continuous-flowering Roses we have, might also be tried. It ought to do well, considering that during the last sixty years it has made its appearance on more walls in the United Kingdom of all aspects than any other Rose whatever.

For a wall facing south I would suggest Mme. Alfred Carrière (blush white), to my mind the most beautiful and reliable of all the so-called continuous-flowering Roses. Rêve d'Or (buff

yellow) might be inserted to represent the yellows. At the present time a plant of this variety is flowering most freely on the south side of a parish room, where I planted it many years ago. On a dwarfed wall, Lady Waterlow, with its delightful pale salmon blush flowers, tipped pink, would form a charming object, and in such a position its autumn-flowering proclivities would be encouraged. Here, too, might be planted with advantage Climbing White Maman Cochet, before mentioned; also Climbing Mrs. W. J. Grant (deep rosy pink), which also is often at its best in the autumn when many other autumn-flowering climbers are over.

For an east wall it would be well to choose Roses whose foliage can withstand the hot sun and cutting easterly winds so often prevailing in the spring. For this purpose one could not do better than start with that hardy and early, fragrant-flowering rugosa Conrad F. Meyer, with its large, silvery rose tinted blooms. Here, too, should come in again our old friend Gloire de Dijon, or, perhaps better still, Bouquet d'Or. Ards Rover (dark crimson) is often recommended for an east wall, but I myself should be afraid that in such a position it would be more than usual subject to mildew. For a pink variety Climbing Caroline Testout might advantageously be inserted.

For clothing a west wall, Climbing Aimée Vibert would be most appropriate, as it bears its trusses of white flowers so late in the season. William Allen Richardson, a well-known and favourite Noisette, might also be used on a west wall, for it is evidently the rapid changes that take place in the spring and early summer which cause it in other situations to be often so unreliable in its first flowering. Reine Olga de Wurtemberg, with its fine foliage and bright crimson flowers, should also clothe a west wall to advantage.

THE ROSE GARDEN OF EUROPE.

ONE summer's evening a party of three—two friends from Ireland and myself—were seated in the courtyard of an orphanage in Sofia. We were drinking Turkish coffee and discussing the merits or otherwise of Bulgarian sour milk and its relationship, if any, with the bacillus of long life. One of my Irish friends, expressing himself very strongly on the subject, said that he preferred to die young rather than to eat or drink sour milk. At this juncture a carriage drove into the courtyard and pulled up before the entrance to the orphanage. To our surprise it came from the Royal Palace. A messenger alighted and in perfect English told us that King Ferdinand, having heard of the arrival of three plant collectors in Sofia, would like to see us on the morrow. And so it came about that next day, after passing through some of the squalid streets of Sofia, we found ourselves in audience with the King at the Royal Palace. That he is a clever, interesting and cultured man, no one will gainsay. He showed great interest in our projected tour, and gave us valuable assistance. But he is so unlike his people. The country is poor, and signs of poverty are seen on all sides. The King lives in luxury in palatial buildings with all the pomp and extravagance of Court life. He loves an ostentatious show of wealth and lavish decorations. What a contrast to his neighbour, King Peter of Servia—the peasant King as he is often called! One does not need to be in Bulgaria long to realise that King Ferdinand is far from popular with his subjects.

He is, in fact, an unnatural King, holding his position by genius of intrigue, of which he is a master hand.

We left the palace in the afternoon and proceeded on our way to the Rhodope Mountains. Darkness was setting in when we halted outside a peasant's hut about half way up Mount Vitosch. The peasant was near by, tending sheep and goats on the mountain pastures, and his spouse, Baba, who, by the way, was considerably over a hundred years old, was bringing water and fuel to the hut. We approached the shepherd, who was clad in sheepskins and wore sandals and a bearskin cap, and asked him if we might spend the night in his hut or in one of his cattle shelters. On learning that we were English and Irish, he took us to his hut and made us welcome. Nothing could have been more crude and primitive than this dilapidated dwelling, and yet it was the typical home of the Bulgarian peasant. The walls were of mud plaster, and the thatched roof had a sieve-like appearance. Our faces lighted up as we observed that the only attempt at decoration was a portrait of Gladstone cut from a newspaper and pasted on the wall. The name of Gladstone is honoured above all others by the Bulgarian peasants and they talk fondly of him.

A Valley of Fragrant Roses.—We journeyed eastward to Stara Zagora, and thence to Kazanlik. Never shall I forget the scene one early morning in June, when from a hilltop we looked across a wide and fertile valley filled with fragrant Roses. Bulgarian women, young and old—some of the younger ones wearing Roses in their hair—were busy gathering Roses and taking their full baskets to the distillery near by, where, after a long and tedious process, attar of roses is prepared. The opened and half-opened

buds are gathered when the early morning dew is on them. It is only on cloudy days that picking is continued after ten o'clock. Roses gathered when the sun is hot on them have a comparatively feeble odour, and yield much less attar. It is interesting to observe that the Rose grown is *Rosa damascena*, a variety not known in an uncultivated condition. The hedges of the plantations are usually defined by a white form of the Damask Rose, and the flowers are usually mixed indiscriminately with those of the red Rose when harvesting takes place. The flowers are picked with their sepals on; these are not separated, the whole flower being distilled. It takes about 100,000 Roses to yield an ounce of attar. The Rose bushes are planted close together, forming compact hedges about 6 feet in height extending as far as the eye could see.

Our party of three left this gorgeous Eastern scene hopeful that we might return to it in the June of another year. A strange turn of the wheel has brought back the writer of these notes from the trenches of Flanders to the scene of his former labours; while, alas! one of the party, as announced in our last issue, has found an honoured grave in the Dardanelles.

C. Q.



GATHERING ROSES NEAR KAZANLIK, BULGARIA.

ROSE HEDGES.

HOW TO MAKE AND MAINTAIN THEM.

A MORE beautiful feature can hardly be imagined than a good hedge of Roses when in full bloom, yet I am often surprised, not to say grieved, to find such unprofitable plants as Privet, Box or Yew occupying fine positions that might with advantage be planted with Roses. It is, perhaps, hardly possible to keep a Rose hedge quite so neat and trim as the shrubs mentioned can be kept; but the Rose is one of the most adaptable of plants, and if a judicious selection of varieties is made, a hedge of almost any desired form or size can be created.

For Low Hedges the different varieties of Polyantha and China Roses are very useful. Each of these classes blooms most freely and perpetually, and would be a pretty sight right through the summer and autumn. The common China, especially, is an ideal hedge-maker, growing sufficiently strong to form a compact screen 4 feet or 5 feet in height. Some of the moderate-growing species might also be used with advantage, such as Rosa Hugonis, R. Ecæ, and Austrian Yellow or its lovely variety Austrian Copper, all of which give beautiful single yellow blooms in abundance in the early summer.

A Medium Hedge may be obtained by planting such dwarf Roses as Hugh Dickson (crimson), Caroline Testout (silver pink), Snow Queen (white), La Tosca (salmon pink), and Mme. Abel Chatenay (salmon). Grüss an Teplitz is a most effective hedge-maker, and I know of a fine specimen in a large public Rose garden which is a grand sight throughout the summer and autumn. For freedom of flowers there is nothing in the Perpetual classes to equal it. The Moss Roses and the Rugosas rubra and alba are also valuable, especially the last two, which, after giving a fine display of large red or white single flowers, are covered with beautiful scarlet fruit in the autumn.

Tall Hedges.—For a fairly tall hedge the common Sweet Briar is quite suitable if clipped occasionally. The scent from such a hedge is very powerful, especially after a shower and in the evening. I have heard it said that a real protective hedge cannot be formed with Roses to be as effectual as Whitethorn, but I doubt whether any person or animal would attempt to break through a hedge of such varieties as Flora (Ayrshire), Una (Hybrid Briar), Aglaia (Multi-flora), Mrs. O. G. Orpen (Hybrid China), Bennett's Seedling (Ayrshire) or Madeline Filot (Rugosa). These varieties are armed with most cruel hooked spines, and would quickly make an impenetrable hedge. On the other hand, it might be objected that a Rose hedge planted near a walk might be troublesome and tear the clothes of passers-by; but even in this case suitable varieties can be planted, such as Morletti (Boursault) and Zephyrine Drouhin, both of which are thornless, the latter being also one of the sweetest Roses in cultivation, both in colour and scent.

Supports for the taller hedges must be provided, and substantial wood posts connected by wires are best. Plants should be 15 inches to 18 inches apart in the case of the dwarf growers; 2 feet for such as Hugh Dickson, Grüss an Teplitz, &c.; and 3 feet in the case of the Wichuraianas. If a thick hedge is desired, a double row might be

planted. All the varieties should be cut back to about two feet the first year to encourage bottom growth, excepting the Wichuraianas, which may be left almost full length. Afterwards, all the pruning needful is to take out the old useless wood each spring, in order to encourage fresh growth and to keep up a healthy appearance. Nor must the matter of feeding be overlooked, liquid manure and Wakeley's Hop Manure being most desirable. If possible, own-root plants should be used, especially in the case of the climbers proper, as the suckers thrown up by budded plants are often a great nuisance. W. A. E.

FRAGRANT ROSES.

BY THE REV. DAVID R. WILLIAMSON.

I HAVE occasionally made the incidental observation, when writing upon this fascinating subject, that a Rose without the essential attribute or element of fragrance was like a beautiful woman devoid of sweetness of nature, or what is generally termed amiability. When I was recently asked by a young lady of uniquely charming physical aspect to compose some verses for her autograph book, I sent her the following improvised lines:

"I sing not, Lady, that thy charms are rare,
For outward grace alone finds not the heart;
But that thy nature, like some radiant air,
Born of the Dawn, bids inward clouds depart."

But when a Rose, like this highly endowed yet quite unaffected maiden, has both characteristics, it is as near an approximation to absolute perfection as imagination can conceive. Varieties of the Baroness Rothschild family, which is now an exceedingly comprehensive one, such, for example, as Merveille de Lyon, which made such a sensation when it appeared, and the more recent and much more impressive Snow Queen, though assuredly grandly effective "introductions," are far less valuable from an odorous point of view than the glorious old Devoniensis (which very few modern Tea Roses, however radiant in their colouring, completely eclipse) or the still widely cultivated and fondly cherished Gloire de Dijon. For at least ten or twelve years I had an unusually fine specimen of Devoniensis growing in front of my study window in Kirkmaiden Manse, which, chiefly by reason of what I would venture to term its amiability of aspect and its gentle yet subtly diffusive fragrance, "like odours rapt from remote Paradise" (as Tennyson once sang in his now unpublished "Timbuctoo"), was, during that comparatively long period of assiduous Rose



THE NEW SEEDLING ROSE FLAME OF FIRE. (See page 525.)

culture, my predominating attraction. For many years after the death of this great favourite I was chiefly fascinated by the odorous charms of the still almost incomparable La France; and now, for similar reasons, I am almost equally attracted, in the terraced garden of Kirk House here (where I am only a quarter of a mile from the Manse), by one of its grandest derivatives, Edgar M. Burnett, eminent among Mr. S. McGredy's most recent—and assuredly one of his finest—creations. Mr. Arthur William Paul's floriferous Majestic, which was awarded the gold medal of the National Rose Society, and sometimes reminds me of my English Rose namesake, also raised at Waltham Cross, is a richly odorous acquisition.

The great majority of the China, Austrian and Penzance Hybrid Roses are, like the old pink Provence (parent of the beautiful Moss varieties), extremely fragrant, many of them in foliage not less than in flower. Perhaps of all Hybrid Teas at present in cultivation, the most odourously attractive are La France and General Macarthur, the latter of which was first strongly recommended and subsequently sent to me by Mr. Walter Easlea, a highly accomplished English hybridist and rosarian. Several of the finest of recently originated Irish Roses, natives of the world-renowned nurseries of Newtownards and Belmont, are endowed with an exceptionally refined gift of fragrance, which has descended to them, from Maréchal Niel. Supreme among these are such almost peerless beauties as Miss Alice de Rothschild, Mrs. Wemyss Quin and Mrs. Archie Gray,

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Figs.—The second crop of Figs will continue to ripen so long as the atmospheric conditions are suitable. Maintain a little warmth in the pipes, and keep the ventilators open both top and bottom. This will not only encourage the fruits to ripen, but will also help to ripen the wood, which is of great importance for the success of next season's crop.

Fig Trees in Pots.—If it is intended to place the early trees into the forcing-house early in November, those which have their wood perfectly matured must be selected. These must be pruned and cleaned; and should there be any doubt about the wood being matured, keep them out in the open for a week or two longer. The pruning consists chiefly in thinning out the shoots where they are too thick and removing useless spray. Great care is necessary in the early forcing of Figs till the growth and roots are active. For the first few weeks no artificial heat is necessary.

Late Grapes.—There should be no Grapes unfinished by this date, as the weather this season has been exceptionally favourable. It may still be necessary to water the roots where the borders are inside. This operation should be done on a fine morning; and to prevent moisture from rising to the bunches, thin layers of clean straw should be scattered over the border after watering. Go over the bunches once a week to remove bad berries; and where mealy bug is present, care must be taken that these insects do not enter the bunches.

Plants Under Glass.

Roman Hyacinths.—If these were potted as advised in a previous calendar, they should now be ready to be taken from the ash-bed. Place them in a cold frame to expose them to the light. They may be taken from the frame to force in batches as desired.

Paper-White Narcissi.—These also should be ready to be moved from the ashes into cold frames. Before placing Narcissi into heat, it is essential that the pots are full of roots. Do not place them in a high temperature, or many of the bulbs will fail to flower.

Primula sinensis.—The earliest plants will now be throwing up their flowers. They will need plenty of stimulants, as the pots will now be full of roots. Soot-water given once a week will considerably improve the colour of the flowers. *Primula obconica* is a most useful plant for the conservatory during the autumn and winter months. If given liberal treatment in regard to watering and feeding, they will continue to flower during the greater part of the winter.

Poinsettias.—These plants will now be developing their bracts, and it will be wise now to somewhat lower the temperature of the house. At this period a circulation of air, coupled with a little warmth in the hot-water pipes, will create the desired atmosphere. A temperature of 50° or 55° will be quite enough unless the outside conditions are unusually warm. These plants will not need so much moisture at the roots, but they must not suffer in this respect.

Pelargoniums.—To keep these flowering as long as possible, the house must be well ventilated, and during damp weather a little heat must be turned on. The plants will require plenty of water, but they must not be overdone in this respect, or growth will be soft, which is not conducive to good flowering.

The Flower Garden.

Replanting Herbaceous Borders.—When the spring bedding is finished, attention should be given to the overhauling of hardy flower borders. Herbaceous borders need replanting every two or three years, but it is possible that many will have to be neglected in this matter through shortage of labour, from which every garden is more or less suffering at present. If time will not allow of the plants being taken up and replanted, the clumps should be gone over and reduced where necessary, afterwards carefully forking in some well-rotted manure between the plants. Before cutting down the plants, see that they are all correctly labelled.

Roses.—I have never seen the autumn Roses so good as they have been this season. *Mme. Abel Chatenay*, *Arthur R. Goodwin*, *General Macarthur*, *Rayon d'Or*, *Lady Hillingdon*, *Mme. Ravary* and *Mme. Jules Gravereaux* have been splendid. With favourable weather the plants promise to supply good flowers for some time to come. Keep the beds clean, and hoe between the plants when the soil is in suitable condition.

The Hardy Fruit Garden.

Winter Dressings.—A systematic spraying of fruit trees during the winter and spring months is now generally recognised by all fruit-growers. The first dressing should be given in the autumn, when the insects are going to their winter quarters to lay their eggs. Grease-proof bands are excellent traps if placed in position early enough to trap the insects when they are ascending the trees. These are inexpensive and may be procured ready for use.

The Kitchen Garden.

Cauliflowers.—These must be gone over regularly, with the object of protecting the heads from frost. Those that are fit for use may be pulled up and laid in a cool shed, where they will keep fresh for several days. Others may be protected by their own leaves. Later on, when severe frost is expected, those which have just commenced to turn in may be carefully lifted with a good ball of roots and placed closely together in cold frames.

French Beans.—Another sowing of these may be made in 7-inch pots and placed in a warm house. When the plants are through the soil, place them near to the glass. The plants which are fruiting in cold frames must be given plenty of air, or they will damp.

Rhubarb.—It is time now to prepare roots for forcing. When the foliage has died down, lift the roots and lay them in a shed for a few days before placing them in the forcing-pit.

Tarragon.—A supply of this useful herb may be kept up by placing roots in a warm house every three or four weeks. Plant the roots thickly in cutting boxes and thoroughly soak them with water.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

The Flower Garden.

Planting Roses.—Where it is possible to do so, this work should be commenced now, and, if possible, completed before the severe winter weather arrives. As Roses continue to form roots through the winter, during open weather, the advantage to be gained by early planting will be readily seen. In most gardens dwarf Hybrid Tea Roses become exhausted after three or four years. If the plants are carefully lifted and heeled in temporarily while the beds or borders are being trenched and enriched with manure and fresh loam, if available, they can be replanted, and any very worn-out, weak plants replaced by young stock. When this is completed, they should be protected from severe frost by a covering of straw or Bracken.

Bulbs.—Any of the summer-flowering bulbs, such as *Gladiolus* and *Hyacinthus candicans*, which may yet be remaining in the ground, should be lifted before there is any danger of them being injured by frost. It is best to let the stems thoroughly ripen before severing them from the bulbs. This will take place in a few weeks' if they are hung up in a well-ventilated shed.

Plants Under Glass.

Nerines.—These plants are now pushing up their flower-spikes, and should be given a little top-dressing if there is sufficient room for applying it. They should not be repotted more frequently than once every third or fourth year. As growth advances, some help may be given with liquid manure.

Chrysanthemums.—The bulk of the late-flowering varieties now being indoors, there is danger of overcrowding the plants. Not only is disease spread and encouraged by growing the

plants too closely together, but weaker blooms and stems result. The growths at the base of the plants ought not to be removed after this date, as they will be available for cuttings in a few weeks. Great care must be taken when watering the plants not to splash any unnecessary water on the floor or stages if there are any flowers open, as this causes the petals to damp. In the case of single-stemmed plants, laterals must still be watched for closely, as they are sometimes apt to make a quick growth quite unobserved beneath the large foliage.

Tree Carnations.—Plants which were potted in 6-inch and 7-inch pots in July are now well established, and call for more frequent tying of the flowering shoots as they develop. A little weak soot-water, also Clay's Fertilizer, given in the water helps to encourage a free and firm growth. Keep a little heat in the pipes to help to dispel any abundance of moisture in the houses, but allow it also to escape naturally by the use of both the top and bottom ventilators.

The Hardy Fruit Garden.

Strawberries.—If the runners have been regularly cut from the plants, and weeds well kept down, there is not much need for forking between the rows at this season; but where weeds abound, there is generally a multitude of small seedlings, which give a Strawberry bed an untidy appearance. Where this is so, a light forking over should be given, but not deep enough to endanger any of the roots.

Gathering Fruit.—Late varieties of Apples should be pulled as they become ripe. Some of the Greenings are only ready after this date. Premature gathering means shrivelled fruit with loss of flavour.

Fruit Under Glass.

Melons.—Where there is a large batch of Melons maturing fruit, slightly different conditions are necessary from the usual treatment given to summer crops. With sunshine not being so plentiful, more pipe heat is essential. A high temperature should rule night and day until the fruit is quite ripe. When there are a few hours of sunshine, opportunity should be taken to open the top ventilators slightly, just sufficient to allow the moisture to escape and keep the atmosphere wholesome. Watering of the plants should cease altogether as soon as there are signs of ripening.

Peaches and Nectarines should be looked over frequently to see if the borders require water. Copious waterings should be given until the leaves fall. Neglect in this direction would mean bud-dropping and failure of next season's crop.

The Kitchen Garden.

Tomatoes.—Plants which are bearing should be given help by top-dressing, also stimulants in the water. This, however, should only be done with discretion, as sunshine being less plentiful and the days shorter, the plants are not able to assimilate such quantities nor so quickly as they would do during the summer or autumn. Ventilation should be given freely during fine weather, avoiding too close an atmosphere, which would have a bad effect on the plants.

Celery.—Take advantage of every favourable opportunity to get the final earthing completed. Even the latest batch of all should not be too long deferred, or there will be a danger of getting it destroyed by frost.

Celeriac.—Where this vegetable is grown, it should now be lifted and stored much in the same way as one proceeds with Carrots and other root crops.

Digging and Manuring.—Where it is possible, proceed with this work. It is a great advantage to many crops if it can be done early, as then the soil is exposed to all the beneficial influences of the winter weather. For such crops as Onions and Peas it is of special advantage.

Seed Potatoes which are now ready for storing for the winter should be looked over and any diseased tubers removed. The best method is to keep them spread out in trays or shallow boxes away from frost, but cool and well ventilated.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

SOME GOOD NEW ROSES.

AT the Autumn Show of the National Rose Society, held recently, there were some very good novelties exhibited, some of which had previously received awards, so were not included in the list published in our issue of September 25. Several of these are not yet in commerce, but it will be well to note them for further guidance, as unquestionably they will be wanted. The names in parentheses indicate the raisers.

Climbing Mme. Abel Chatenay.—A very vigorous sport of this popular favourite, making, on maiden plants as shown, growths 6 feet to 7 feet long in a season, and no doubt under glass even of greater length than this. This fine sport will rank in usefulness equal to Climbing Mélanie Soupert, Climbing Sunburst, Climbing Mrs. Grant, &c., and cannot fail to be largely planted when it is distributed. (Walter Easlea.)

C. K. Douglas.—A very large petalled Hybrid Tea Rose of glorious scarlet crimson colour, reminding one of Brilliant, only apparently fuller and superior. (Hugh Dickson, Limited.)

H. P. Pinkerton.—A vigorous Hybrid Tea Rose with nice-shaped flowers of a coppery pink shading. (Hugh Dickson, Limited.)

Queen Alexandra (Perpetual Climber).—The flowers are something like Una, only a little smaller, with the edges of the petals on the reverse side a blush pink, giving a very beautiful impression in the mass. (Rev. Joseph H. Pemberton.)

Galatea (Perpetual Climber).—Like a double form of Moonlight. There does not appear to be any room for a Rose of this description, and those who will plant it will be very limited in number. Roses of this class must be perfectly distinct and attractive to command public attention, and we shall soon be overburdened with them unless discretion is employed by raisers. (Rev. Joseph H. Pemberton.)

Lady P. Moore (H.T.).—A very double and large Rose of soft blush pink shading. In form it resembles Mrs. Cornwallis West. Should be a good stayer to the exhibitor.

Cheerful (H.T.).—A lovely bit of colour, at first sight recalling a good-coloured Juliet without the old gold suffusion on back of petals. It is a large flower, as big as Caroline Testout, so should prove a splendid decorative sort. (S. McGredy and Son.)

Mrs. George Marriott (H.T.).—A very pretty Rose with yolk of egg and pinkish colouring. (S. McGredy and Son.)

Mrs. Franklin Dennison (H.T.).—A huge flower of the Mildred Grant form, with a porcelain white colouring and primrose shading at base. Exhibitors will find this a grand sort, and as it

grows so freely it must be useful, too, in the garden. (S. McGredy and Son.)

T. F. Crosier (H.T.).—A very large bloom, full, and of a soft cream yellow. (Hugh Dickson.)

Mrs. J. Sutherland (H.T.).—Excepting that it has a very dull crimson pink colouring, this should be a fine Rose, for it is quite mildew-proof and possesses the old Cabbage Rose scent. (Killermont Nursery, Bearsden.)

Flame of Fire.—A seedling Hybrid Tea of rather small size (see illustration, page 523), and specially recommended for bedding. Colour, deep orange yellow, and slightly fragrant. (S. McGredy and Son.)

Callisto (Perpetual Semi-Climber).—A nice yellow, deeper than Danæ, but not so bright,

may be acceptable to the hardy plantsman, but we fancy Rose-growers will do without them. (Paul and Son.)

The following kinds have produced flowers this autumn upon shot-out buds, and we can highly recommend them to the Rose-lover:

Constance.—Superb in its daffodil yellow colour and fine egg form, making it in this last respect a great advance on Rayon d'Or.

Hadley.—A splendid rich crimson with velvety shading. The flowers are upstanding, double and shapely, and very fragrant. There is a slight tendency to "blue" at times, but just now the colour is superb. Recently received from America.

Admiral Ward.—A very good rich reddish crimson. The buds on opening are quite blackish red, a trait the variety takes from one of its parents, Château de Clos Vougeot. The growth is erect and vigorous. We believe it will be a good addition.

Sallie.—A rich yolk of egg colouring in the centre of the flowers, which resemble Joseph Hill in form, only they are larger. The trusses of bloom are borne erect, a very excellent quality, which should make this Rose a valuable addition.

DANECROFT.

A MAGNIFICENT RAMBLER ROSE.

(AMERICAN PILLAR.)



ROSE AMERICAN PILLAR AS A WEEPING STANDARD.

and it appeared to us, as shown, not to be wanted while we have Danæ. (Rev. Joseph H. Pemberton.)

Clytemnestra (Perpetual Climber).—A very pretty mixture of apricot and reddish colouring. Doubtless very beautiful when seen growing, and, being perpetual, should be very useful. (Rev. Joseph H. Pemberton.)

Henrietta (H.T.).—If this Rose had appeared before Mme. Edouard Herriot, it would have created a sensation, for it has much of its lovely colouring, with buds not unlike Lady Battersea. (H. Merryweather and Son.)

Silver Gem.—A variegated-leaved form of some Dwarf Polyantha Rose, probably Phyllis. As shown in pots the variegation was constant, but our experience of these variegated-leaved Roses has not been very favourable. Freaks of this character

IN mid-July this charming climbing Rose is in full flower, its enormous trusses projecting out from the trellis-work and arbours, forming one of the most delightful and showy climbers of the present day. These trusses of bloom are borne on thick stems, sometimes 3 feet in length, and, unlike most climbing Roses, the flowers are not spoilt by rain and wind. The flowers are single and bright rose pink in colour, the average flower being 2 inches to 3 inches in diameter.

As this Rose is a robust grower, it cannot be given too much space in which to grow. I have known it to make shoots in one year as long as 20 feet and nearly three-quarters of an inch thick at the base.

When pruning this rambler in the winter, all the old growths should be cut out, providing there are enough young shoots to occupy the space. The new shoots should not be tied in close together; 9 inches apart will be found to be none too much when they commence to grow the following spring.

This Rose is readily propagated by cuttings taken in the autumn when the wood is ripe. When taking the cuttings, the best growths can be obtained near the base; these should be between 6 inches and 8 inches in length, and have a heel of old wood attached if possible. In fact, these can be obtained much easier if they are slipped off instead of cutting them, as they strike more readily with a heel of old wood attached than if cut otherwise. The cuttings should then be placed in a sheltered spot (better still if a hand-light is obtainable) in

good turfy loam, with about a third of silver sand mixed in it.

When these cuttings have taken root and begin to make plenty of growth, they can be planted out, and if placed in good stiff loam with some cow-manure added, they will soon become well established and amply repay for the time and labour spent on them.

F. J. CLARK.

Dropmore Gardens, Maidenhead, Berks.

AN AUDIT OF GRAPES AT THE RECENT FRUIT SHOW

ALTHOUGH there were many desirable bunches of Grapes at the recent fruit show in the Royal Horticultural Society's Hall, it cannot be said that the display was more than an ordinary one. This may be due somewhat

to the lateness in the season when the show is held, as by that time so many of the late summer varieties are past their best or have been consumed. The audit which I have compiled proves that those varieties which are of the highest quality are, naturally, the most popular, with one exception—Alicante; while inferior sorts like Gros Maroc, Gros Guillaume and Foster's Seedling are becoming almost obsolete. The total number of varieties staged—seventeen—still shows there is a hankering after a long list of varieties, which is a weakness among gardeners in the same way that it is with all fruits. Too many sorts are grown, more than their merits deserve.

Muscat of Alexandria heads the list, as it always does at this season of the year, and rightly so, as no other Grape is equal to it in all points—crop and quality. It is surprising how many years Vines of this variety will continue to bear successfully. Many comments were made at the show on the first prize award. The general opinion was that the judges were right in selecting the riper specimens. There was, in all classes, an entire absence of inferior specimens of this Grape, if there were no great outstanding bunches.

Alicante comes second in numbers, but it cannot be said there were any bunches of great merit. So many had quite small berries, while the bunches for this variety were distinctly small.

Madresfield Court was well represented in berry and colour. The bunches were quite small, but shapely.

Mrs. Pince appears to be further declining in public favour, but eight bunches were staged; these were furnished with quite small berries of fair colour.

Black Hamburgh is the most popular Grape for all purposes, especially with the amateur. October is late to see it in good condition. The six bunches shown were of a desirable character.

Prince of Wales appears to be a puzzle to growers to present it in good condition. So many growers fail to get bunches at all, while others fail to fertilise the berries properly. In the first place, new wood is necessary to produce bunches of a good size. One bunch was well presented, being of full size, with enormous berries which were fairly well coloured. The remaining five bunches were quite ordinary.

Muscat Hamburgh, the finest-flavoured Grape known, was poorly represented by four bunches. Little in their favour can be said, although two bunches secured the premier award in the any other variety class.

Appley Towers was shown but four times, which, considering this is one of the best of late Grapes, in every way was a surprise. This Grape is fast superseding Lady Downe's, which has been popular for the last sixty years.

Lady Hutt.—The four examples of this late Grape were poor representations. At Aldenham I recently saw it in prime condition. Gros Colmar, Gros Maroc, Foster's Seedling and Gros Guillaume were only twice represented. One of the bunches of the latter was huge, regularly furnished with small, well-coloured berries. The other, which was a smaller bunch, was infinitely superior, but the least said about the flavour of this Grape the better. I once saw it grandly shown as Pennington Hall Hamburgh, but under that name it did not make any headway.

A seedling was shown said to be the result of a cross between Black Morocco and Cannon Hall Muscat. To me it was much like Directeur Tisserand, which cannot be said to possess many qualities beyond a shapely bunch and highly coloured berries.

Name.	Bunches.
Muscat of Alexandria	31
Alicante	21
Madresfield Court	14
Mrs. Pince	8
Black Hamburgh	6
Alnwick Seedling	6
Prince of Wales	6
Lady Downe's	4
Lady Hutt	4
Muscat Hamburgh	4
Mrs. Pearson	4
Appley Towers	4
Gros Guillaume	2
Gros Colmar	2
Foster's Seedling	2
Gros Maroc	2
Seedling	2
Total	122

Swanmore.

E. MOLYNEUX.

POTATO TRIALS AT WISLEY.

A SUB-COMMITTEE of the Royal Horticultural Society's fruit and vegetable committee examined the early and midseason Potatoes under trial at the Society's gardens at Wisley on July 29 and since made the following recommendations for awards, which were approved by the President and Council at a recent meeting.

PREVIOUS AWARDS CONFIRMED.

First-early Varieties.—Award of merit, given in 1908 to Midlothian Early, stock under trial sent by Messrs. Dobbie.

Second-early Varieties.—First-class certificate, given in 1912 to Whitchill Seedling, sent by Messrs. Dobbie. Award of merit, given in 1901 to Express (Sharpe's), sent by Messrs. Barr. Award of merit, given in 1900 to Sir John Llewelyn, sent by Messrs. Dobbie.

Midseason Varieties.—Award of merit, given in 1911 to Great Scot, sent by Messrs. R. Veitch.

NEW AWARDS.

First-early Varieties.—Award of merit to Duke of York, sent by Messrs. Dobbie.

Second-early Varieties.—Award of merit to Old Yellow Ashleaf, sent by Messrs. Stark; and to Stirling Castle, sent by Messrs. Sutton. Commended, General Joffre, sent by Messrs. Sands.

Midseason Varieties.—Award of merit to Arran Chief, sent by Messrs. R. Veitch; Stretton No. 20, sent by Messrs. Milne; and to Wolfe's Secundus, sent by Messrs. Dobbie. W. WILKS, Secretary.

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

Offices: 20, Tavistock Street, Covent Garden, W.C.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

HYDRANGEAS AND OTHER QUESTIONS (Zitella).—Established Hydrangeas flower each year if properly treated, though a good flowering depends upon good wood being made and thoroughly matured. The best cuttings are formed of the tops of the shoots, and these, rooted in spring and early summer and grown without a check, give good heads the following season. Hydrangeas are either pink or whitish in colour naturally, though occasionally they sport and produce blue heads of bracts. The deeper colour is obtained by the use of a preparation known as Cyanol, obtainable from seedsmen and others. Sweet Sultans prefer rich, light, well-tilled soil, and they are not likely to succeed if sown in ground that was "very hard." Sow thinly in pots in October or November—half a dozen seeds in a 5-inch pot—grow in a cold frame or quite cool greenhouse for the winter, and transfer to the open in March, planting in well-cultivated ground.

ORNITHOGALUM ARABICUM (H. C. R.).—This is not suited to growing out of doors permanently, though growing plants might be plunged in a bed or border to flower. It is unreliable for forcing. Such bulbs frequently refuse to start after being collected in the wild (green) state, and fungus—the combined product of this and subsequent packing and sweating—permeating the tissues, sets up decay. It is usually of erratic behaviour. Nertera depressa has never given us the least trouble when grown in a cold frame in peat, loam and burnt earth, and abundantly supplied with water at all times other than the flowering season, when it should also be freely ventilated. Comparative overhead dryness at flowering-time must, however, be observed. The plant is quite hardy if plunged in a cold frame. Stapelia is a large and comprehensive genus, and we could not even guess the name of the species to which you refer from a verbal description. The largest-flowered is *S. gigantea* its flowers are often 12 inches to 14 inches across. This might be the one you refer to. *S. spectabilis*, *S. grandiflora* and *S. Asterias* are very large. The last named is one of the handsomest of these plants. The shedding of the flowers of *Salvia patens* and their sparse production are among the weaknesses of an otherwise glorious plant. If you are acquainted with anyone who is a Fellow of the Royal Horticultural Society, the presentation of his card would admit you to the Wisley Gardens, or you may become a Fellow by subscribing one guinea annually, which would also entitle you to other advantages.

THE GARDEN.

No. 2293.—VOL. LXXIX.

OCTOBER 30, 1915.

NOTES OF THE WEEK.

Autumn Tints.—Among the many beautiful trees and shrubs garbed in their rich autumn colour at Kew, *Parrotia persica* is very prominent. No words can adequately describe the rich colours, a gorgeous blending of crimson, orange and gold. It is a tree of moderate size for its height, and the lower branches are wide spreading. The clusters of flowers with prominent red stamens are produced during February and March. As the name suggests, this *Parrotia* is a Persian tree, and though first introduced over seventy years ago, is not commonly cultivated.

A Pure White Autumn Crocus. On this page we illustrate an autumn-flowering *Crocus* of rare beauty which recently gained an award of merit from the Royal Horticultural Society. Mr. E. A. Bowles, on page 529, writes in praise of this beautiful *Crocus*, which has cup-shaped blossoms and rounded segments of fine texture.

Antirrhinum Eaten by Animals. At a recent meeting of the scientific committee of the Royal Horticultural Society, Mr. Cuthbertson called attention to the damage done by some gnawing animal (possibly the short-tailed field mouse) to the developing fruits of *Antirrhinums* at Marks Tey, Essex. The half-ripe fruits were bitten through and either partly or wholly devoured. Only one variety had been attacked out of a great number growing there, viz., *Yellow King*.

Gall on Root of Cupressus.—To the same meeting Mr. Finlay Sanderson of Chislehurst sent a large gall (larger than a cricket ball) from the root of a tree of *Cupressus lawsoniana*. Similar galls on the roots of *Cupressus* and other plants have frequently been shown before the committee, and are probably due to the attack upon the plant of *Bacillus tumefaciens*.

Rose Cissie Easlea.—This is one of the best, if not the best of the newer varieties I planted last autumn. Its habit is very vigorous, bearing fine shoots and handsome, leathery foliage that is immune from the slightest trace of mildew, and the blooms are well held on erect stems. The colour is a pale buff, with pale carmine shading in the centre. It is a Rose that lasts well on the plant, while as a cut bloom it retains its freshness for a very long time. This is a variety that, once tried, will be always grown.—E. W.

Solidago Golden Wings.—The common Golden Rod, *Solidago Virgaurea*, would be more highly prized did it not come into bloom in July or August, when we have a wealth of Nature's best. In *S. Golden Wings*, however, we have a showy border flower blooming at the end of September, when we are inclined to be less fastidious. This Golden Rod, however, is of real intrinsic worth; it is of medium height, and its golden flowers are borne on graceful corymbs, which doubtless suggest

ing. How often, when this lovely tree is grown at all, is it huddled up among larger-growing trees, and rarely seen in the perfection it would attain if allowed the room it deserves.

Plum Coe's Golden Drop.—This late dessert Plum is not grown nearly as much as its merits deserve. Ripening in September, the fruit will hang until the end of October if the weather is not excessively wet. The cropping qualities are not excelled by any variety, seldom missing a crop if there are Plums at all. The flavour is unsurpassed by any variety, not excepting *Green Gage*. True, a wall is necessary, but it does not matter in what aspect it is planted, it is sure to succeed. The variety has been in cultivation over a century, and is the result of a cross between *Green Gage* and *White Magnum Bonum*.—E. M.

Loganberries.—I have seen good use made of Loganberries by forming a dividing line between the flower and kitchen gardens. Here, planted on soil notorious for its hungry nature, we have a long run of trees planted six years ago, and never once have we failed to get a heavy crop, and in a favourable season many plants make shoots 12 feet or more long. As it is upon these that the next year's crop is taken, readers can readily understand that a ladder has often to be pressed into service when gathering the fruit. Another very strong point in favour of the Loganberry is that birds are not so partial to the ripe fruit as they are to the smaller bush fruit, such as Currants and Raspberries.—F. R. C., Oxford.

A Beautiful Tiger Lily.—Throughout October and during the preceding month *Lilium tigrinum splendens* has been flowering freely in a bed of peat near to the Palm House at Kew. The Lilies were planted between the rather low-growing *Rhododendron Kämpferi* of Japan. This method

of growing hardy Lilies and *Rhododendrons* together has everything in its favour. The nature of the soil and the cool conditions at the root suit Lilies to perfection, while the flowers are borne well above the foliage of the dwarfier *Rhododendrons*. The variety *splendens* is probably the best of the handsome Tiger Lilies, and certainly one of the latest to flower. It grows to a height of 7 feet, and the large, orange flowers are spotted with deep chocolate, almost black spots,



AN AUTUMN CROCUS OF RARE BEAUTY: *C. PULCHELLUS ALBUS*.

its name. *S. Golden Sheaf* is also quite showy, but it is too late in flowering, in Scotland at any rate, more especially as it attains a height of about 7 feet in well-cultivated soils, and consequently suffers from the autumn winds. — CHARLES COMFORT.

The Broad-Leaved Spindle Tree.—At this season of the year *Euonymus latifolius* is very beautiful. Charming as are the other kinds of Spindle Trees, this exceeds them in brilliancy and size of fruit. The leaves also lend depth of colour-

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Crinum Powellii in a Reader's Garden.—The Hon. Mrs. Sidney Meade, Frankleigh House, Bradford-on-Avon, Wilts, sends a photograph of a well-grown *Crinum Powellii* in full flower with the following note: "It is growing in my garden, in the open air. It has been in the same spot for over twenty years, and is quite unprotected in winter. It begins to flower about May, and continues to bloom in September."

Covered Chains for Roses.—The mention by "C. G. B." of tarred rope for Roses prompts the enquiry, Why not tie rope round the iron chain? In this way we should not only have strength, but also, for those who are suspicious of its safety, dispense with any danger of the Rose growths coming in contact with the iron. I may mention that some time ago the idea prevailed here that some iron supports were adversely affecting some plants of Rose Dorothy Perkins, and good stout rope was introduced; but the fears proved a myth, and plenty have since been planted and trained "round and round" the chains without showing the slightest ill-effects.—H. TURNER, *Serlby*.

—We do not use chains covered with anything except good paint, and we find the Roses do very well. We have here a pergola consisting of three small arches, connected on either side of the path with iron chains. Over each arch we grow climbing Roses, Dorothy Perkins, Crimson Rambler, &c., and train all available shoots along the chains to connect the arches. As said above, the chains are well painted before they are put up, and the Roses, which have been planted some years now, have grown and flowered splendidly along the chains, to which they were carefully tied. The pergola was a much-admired sight this summer. We have never found the chains detrimental in the slightest degree to the growth of the Roses, though many readers have expressed surprise that we have not. But if rusty chains had been put up, we should not have had such grand results; indeed, I have seen that done in one garden, and all the young shoots were spoilt. It does not seem to matter if the chains rust slightly when the shoots are old, tough and strong; it is only the fresh young shoots that are considerably damaged thereby.—E. T. E.

A Bright Summer Border.—The *bona-fide* "ribbon border" is now out of fashion, and has sometimes been rather hardly dealt with by those whose horizon is rather narrow. I venture to opine, however, that a border—or rather a series of borders, for the entire length of 100 feet is intersected by two walks—on the roof of the Waverley Market, Edinburgh, looked very bright and attractive during the past season with the following arrangement: An ornamental railing at the back was partly clothed with the two decorative Dahlias *Souvenir Gustave de Douzon* and *Glare of the Garden*, with the following single or double lines—*Marguerite Mrs. F. Sander*, *Pelargonium Paul Crampel* (double line), *P. Harry Hieover*, *Lobelia Waverley Blue* (double line) and *Alyssum minimum*. It should be stated

that this is here the only exception to the more popular free-and-easy style of massing, and Mr. McHattie has, unknown to him, been often complimented on his defiance of Mrs. Grundy.—CALEDONIA.

Cobs, not Filberts.—In your issue for October 9, page 499, "G. G.'s" notes on Filberts were probably intended to include the Kent Cob Nuts, but they were not mentioned. Allow me as a grower of Cobs to say that either the white or red skinned varieties of the Filbert are very uncertain croppers. For example, I hired a fruit plantation for fourteen years, and only once had a crop! Therefore, except for those who can afford lean years and who fully appreciate the Brazil Nut-like flavour of a Filbert, I cannot advise their culture on a paying scale. Kent Cobs, however, seldom fail to bear, although owing to bad weather at their season of flowering—in February and March—the yield may be small. On an average they crop well four years out of five. In 1913



CRINUM POWELLII IN A WILTSHIRE GARDEN.

It has been in the same place for over twenty years.

I paid 2d. per pound to get the crop picked—only 40lb; in 1914, about 1,000lb.; 1915, nearly 2,000lb.; and I have known them retailed at 3s. per pound and as low as 3d. My plantation trees are over a hundred years old, trained in the Kentish basin shape, not over 6 feet high, and are robust and healthy now. To get the Nuts in perfection when dry in winter, soak them overnight in water. In storing in jars, add a little salt to keep them moist.—GEORGE BUNYARD.

Verbena chamædrifolia.—It may interest your readers to learn that the late Captain Saville Reid of Yalding was responsible for the reintroduction of this valuable species. It must be quite seven years ago since he wrote me that he had received from his son in South America seeds of a scarlet creeping Verbena, and that the plants had passed through the winter in Kent with him unharmed by frost. I was much interested in the plant, and could not find anyone who knew

of it in cultivation. It was introduced in 1827, and is figured in the *Botanical Magazine* about that date. Doubtless it was the parent of many of the garden forms we enjoy to-day, but none of which has the same brilliance of colouring. I showed a large mass of the variety on my wall garden at Holland House in 1913, but it was not then honoured by an award, which was a great disappointment to the late Captain Reid. He was an ardent plant-lover, and his garden was full of fine plants. He was particularly successful in the cultivation of Lilies, *L. Parryi* in particular.—R. W. WALLACE, *Colchester*.

Tree Carnations Sporting.—Last winter I had several plants of May Day, which sported and produced flowers almost similar in colour to those of the variety Marmion. I retained the old plants, and this year they are bearing true May Day flowers again. The plants were cut back late last spring. Have any readers of THE GARDEN had a similar experience? I propagated from the stems which produced the sports, but, unfortunately, lost the young plants owing to a long illness. There now appears little chance of regaining my lost sport.—SHAMROCK.

The Breaking of Darwin Tulips.—The Rev. Joseph Jacob, issue October 2, page 485, asks a few questions regarding the above, but my own experience seems to refute all theories. I grow the bulk of my Tulips—some 100 varieties of Darwin and Cottage—between the Roses. Manure they have in plenty, water in abundance. Lime, guano, &c., they must of necessity get when such are applied to the Roses. Yet last spring I lost the entire stocks of nearly a score of varieties, while many others, including the Cottage sorts Fairy Queen and Orange King, were anything but true. The breaking is not due to too frequent lifting, for bulbs in the ground for the third year broke as freely as those planted last autumn. The bitterness of it all is that the breaking is not general everywhere at one and the same time. Last spring several friends within a few miles of London, but at different points, suffered as badly as myself. A Cambridge grower informed me that the breaks were very plentiful, and a grower for cut bloom at Hythe wrote me a most despairing note about the sporting of his Darwins. Although he had grown them for years, he had never before seen a break, yet last spring his Pride of Haarlem, Clara Butt and many others simply went to pieces. On the other hand, two large growers in Essex assured me that on their heavy soil the breaks did not average half per cent. I do not know what the general view is, but it appears to me that fairly heavy, moist soil is less liable to bring breaks than the lighter, dry soils. The most mysterious feature of all is the fact that the breaking seems to be confined to the pink, red and violet shades. The yellow Cottage varieties have never shown a break with me, nor have the maroon Darwins. Equally mysterious is the fact that whereas there are no pure white Darwins, all the breaks show flakes of pure white. I might mention that in 1914 one clump of Clara Butt contained a break which showed ochrous yellow stripes in addition to red. Last spring, however, this break failed to reappear, the flakes being red on pink.—T. A. W.

Rose Corallina.—In the excellent list of autumn-flowering varieties given on page 506, issue October 16, the above-named variety is omitted, and, knowing this Rose so well, I would not like to see it omitted from ever so short a selection. Corallina was sent out by Messrs. W. Paul and Son in the year 1900. In colour it is deep rose, with a pronounced flush of coral. The buds are shapely, highly perfumed, and produced in large numbers.—E. M.

Crocus speciosus Bowles' White.—This autumn I have been enjoying for the first time the flowers of this lovely white variety of *Crocus speciosus*. It is a great improvement on the white *C. speciosus* albus as procured from the trade. The latter is invariably much thinner in substance than this handsome variety. With the exception of a passing flush of blue at the base of the exterior on first opening and a faint lining inside, the flowers are of a charming white.—S. ARNOTT.

Apple Miller's Seedling.—With reference to Apple Miller's Seedling, of which your expert pleads ignorance in a reply to a correspondent, issue October 9, page 502, there are two or three notes with respect to it in the 1908 volume of THE GARDEN. Apparently it gained an award of merit in 1906 or 1907, and is well known in the Newbury and Wantage district, where it was first raised. It is noted that few firms catalogue it, but it can be found in the list of Messrs. Jefferies of Cirencester. It is in season in August.—J. C. ALSOP, Meadowside, Marlborough.

A Remedy for Club in Cabbage.—In your issue for October 9, page 492, your correspondent "B." asks for a remedy for club in Cabbage. For several years I was seriously troubled with this fungoid disease, and, like your correspondent, tried several ways of cultivation to combat it, but with little result. A friend who tried Seride No. 1 Grade with success advised me to give it a trial. Contrary to the directions for use, and to make sure, if possible, of preventing the disease, I watered the seedling beds of both Cauliflowers and Cabbages about ten days after the plants appeared above ground, and afterwards followed the directions for use, one measure to the gallon of water. For the past two years I have continued this course, and have saved all Cabbage and Cauliflower crops. They are now absolutely free from club, and, what is much to the point at the present time, this has been accomplished at a trifling cost both in labour and material.—J. CASWELL, Piggott's Manor Gardens, Elstree, Herts.

A Twining Shrub to Name.—I shall be so much obliged if you will tell me what plant the

enclosed fruit and leaves belong to. It is a climber and is on a small pergola. The fruit is one of a cluster like a small Banana "hand."—ENQUIRER, Chilworth, Surrey. [This is a pretty twining shrub known as *Akebia quinata*. It is a native of China and Japan, and although usually given cool greenhouse treatment, it succeeds well in the open in the Southern and Western Counties of England.—ED.]

The Silk Pod Tree of New Zealand.—Can you kindly give me the name of the enclosed? I hope it may arrive in a fit state to examine, but though picked only an hour ago, it seems already drooping. It is grown from seed sent from New Zealand with the name of Silk Pod Tree, and the seed-pod is similar to that of the Cotton Plant.—A. L. FORD, Lynmouth. [The interesting

CROCUS PULCHELLUS ALBUS.

By E. A. BOWLES, M.A., F.L.S.

IF ever a plant thoroughly deserved an award of merit, *Crocus pulchellus albus* is that one, for it has almost as many good points as a centipede's allowance of legs. Chief among them, though, one should rank the fine texture and firm substance of its blossoms, as it is owing to these qualities that its whiteness is so pure and beautiful. It not infrequently happens that white forms of normally lilac flowers inherit a transparency or skim-milk effect along with their absence of the lilac pigment. This is especially noticeable in some



BORDERS OF DARWIN TULIPS FROM BULBS PLANTED IN NOVEMBER.

seed-pod sent for naming was that of *Asclepias fruticosus*, sometimes known as *Gomphocarpus fruticosus*, a small shrub, native of South Africa, growing about 4 feet high. It was probably introduced into New Zealand from there. It is a member of the Natural Order Asclepiadæ, and, like many others of this Order, produces large pods of seeds enclosed in a silky down.—ED.]

FORTHCOMING EVENTS.

November 3.—National Chrysanthemum Society. Lecture by Dr. Frederick Keeble on "The Scientific Aspects of Plant Breeding," 7 p.m. Dickens Room, Carr's Restaurant, 264, Strand, London, W.C.

November 9.—Royal Horticultural Society's Exhibition of Flowers, Fruits, &c., 1 p.m. to 5 p.m.

of the autumnal Crocuses, as, for instance, the white form of *speciosus* and that very free-flowering variety of *sativus* called in gardens var. *Haussknechtii*, both of which are flimsy and unsatisfying beside a good white variety. Possibly the best of all white autumnal Crocuses is that known as *C. marathonsius*, but it usually commences to flower so late in the season that only where its flowers can be protected by glass overhead can one enjoy them for any length of time. Now this white Crocus, that has lately been honoured by the floral committee of the Royal Horticultural Society, is generally in full bloom in the early days of October and before the rough nights have begun their ill-treatment of such dainty blossoms. The rich orange markings of the throat appear even more conspicuous in this white form than

in the typical lavender blue one, and the orange stigmata and white stamens add another charm of contrast to its beauties.

It has been collected now and again among the blue form in its homes in the Near East, the Forest of Belgrade and on both sides of the Bosphorus, and perhaps is even now being trodden underfoot by the armies at war on the slopes it inhabits. The white form was rare in cultivation until quite recently, when it has, fortunately, appeared among seedlings from the type in more than one garden.

It was a happy day for me when I first saw it in my seed-beds, some seven years since, and now I have in flower some of the children of the original albino, just as white and sturdy as their parent. For garden effect it is best to plant it alongside the ordinary form, the contrast of colouring making it appear all the more beautiful and interesting; but if a good crop of white seedlings is desired from it, it will be best to isolate it and fertilise it with pollen from the white form only.

THE LAUREL-LEAVED RHODODENDRON.

(*R. MAXIMUM*.)

CONSIDERING that this useful evergreen Rhododendron was first introduced into British gardens nearly two hundred years ago—in 1736, to be exact—it is surprising that it is still comparatively little grown. Presumably this is largely because so many beautiful hybrids have been raised in gardens, which for decorative purposes surpass the species. The most important and valuable trait of the Laurel-leaved Rhododendron (*R. maximum*) is the late season of flowering. Towards the end of June and the first half of July, when the great majority of Rhododendrons are over, the subject of this note is in full beauty. A native of the United States of America, *R. maximum* is a perfectly hardy species. In a wild state it is met with as a small evergreen tree some 30 feet or rather more in height. In this country it is a shrub 8 feet to 10 feet in height, occasionally a little taller. The leaves are narrowly obovate to oblong, 4 inches to 6 inches or rather more in length, dark green above, paler beneath. The pale rose-tinted flowers are in compact trusses, 3 inches to 4 inches across. *R. maximum* is readily raised from seeds, which ripen freely in this country. The plants thrive in the usual peaty compost to which Rhododendrons are partial, the roots liking a moister root-run than is necessary for the free-growing hybrids. Rhododendrons love moisture in the growing season, both overhead and at the roots. It may be said that the Laurel-leaved Rhododendron and its hybrids are among the most delightful of all hardy evergreen shrubs.

BERRIED TREES AND SHRUBS.

I WAS much interested in the article, issue October 2, page 482, on "Berried Trees and Shrubs." The introduction of so many new hardy shrubs from Western China, particularly of the Berberis and Cotoneaster groups, promises to make our gardens of greater interest during the autumn months. The new Chinese Berberries are a wonderful race, and if used to good effect in our gardens, will give astounding and beautiful effects. There are many forms close to the beautiful

B. Wilsonæ has been most welcome to the landscape gardener. It can be used in several positions with advantage, and, unlike many plants, produces effect the first season after planting. In France, a few years since, large quantities of this Barberry were used to carpet the ground between masses of large-spreading Junipers which had been planted on a mound crowned with tall specimen Abies. The effect in October of many hundred plants glowing with scarlet berries against the dark background of Junipers and Abies was most telling. I look forward with the hope that the species will be planted as freely in the future as, shall we say, the common Laurel has been in the past; and if "Chinese" Wilson had only introduced this one shrub, the present and future generations will be eternally grateful to him.

Other Berberises of beauty are *B. concinna*, with large, pear-shaped, scarlet berries and with the under side of the foliage quite white. *B. verruculosa* is beautiful in its compact habit and shining, deep green foliage. *B. aggregata* is of stout growth, smothered with scarlet fruits, and in the opinion of a first-class judge (I know of none better) is the best of its class. I understand *B. Veitchii* is equally good, though I have not seen it; also *B. Prattii*, young plants of which with me are very distinct. *B. sargentiana* (which received an award of merit recently) as growing here is very vigorous. It belongs to the Knightii group. The young growths are very highly coloured and it possesses most formidable spines, and, being evergreen, would be a splendid hedge plant.

Another brilliant shrub in autumn and all through the winter, on account of its fruit and foliage, is *Stranvesia undulata*, a spreading form of which I have grown for the last six years. It is now not more than 18 inches in height, covers at least 2½ square yards of ground, and at this season is smothered with clusters of berries of a particularly pleasing and distinct shade of dull orange pink. It is practically an evergreen, and portions of the foliage turn a most lovely scarlet during the winter months. Altogether it is a very beautiful and ornamental shrub. I understand the usual form of this shrub is more erect in growth.

Of the many Cotoneasters, space does not permit me to mention, except to draw special attention to the value of the creeping *C. Dammeri* for the rock garden, especially in the dull winter season. Let the growth of this species ramble near to a planting of the grey Spanish Savin, and when a midwinter sun lights on the glaucous grey of the Savin, sparkling with frost, and also on the scarlet berries of the Cotoneaster, a wonderful picture of winter effect in the rock garden is obtained.

Colchester.

R. W. WALLACE.



RHODODENDRON MAXIMUM, ONE OF THE MOST BEAUTIFUL OF ALL HARDY EVERGREEN SHRUBS.

Berberis Wilsonæ, but all more or less distinct, such as subcauliata, very vigorous, with glaucous foliage and scarlet stems covered with coral red berries; then *B. Coryi* is a tall, erect-growing species (apparently close to *brevipaniculata*) of great strength, covered with orange scarlet fruits. *B. stapfiana* is but yet little known, but may briefly be described as a sturdier edition of *Wilsonæ*. We have here another form close to *Wilsonæ*, but with very glaucous foliage, of George Forrest's collecting. This looks like making a splendid rock shrub, and its blue-grey foliage is charming. All these species, producing much fibrous root, are easily moved, and one other good point is their freedom in producing fruit. I do not know their equal in this latter respect.

THE DAFFODIL YEAR BOOK, 1915.

BY THE REV. G. H. ENGLEHEART, M.A., V.M.H.

IN a "ballad of bulbs" a recent poet in *Punch* confesses how, after adhering to a rigid economy in all other expenditure, he suddenly fell a victim to the lure of a bulb catalogue, and "bang went five shillings." Every gardener has his own best-loved flower, but the keen hunger for spring flowers is common to all. In England the Daffodil has come to be—perhaps always was—pre-eminently the flower of spring, and we shall be in sore straits when we can neither plant its bulbs nor greet its bloom. The report of Daffodil shows held "as usual" in 1915, their advertisement for 1916, and the present issue of the Royal Horticultural Society's "Daffodil Year Book" all indicate that this will be the last flower to be suppressed by the exigencies of the war.

In its first intent, and in its matter for the most part, this is a handbook for the specialist, but will be found pleasant to handle and dip into by those who dwell outside the more intimate Daffodil circle. As to its material form, binding, paper and type are of the best, as is the way it lies flat open in one's hand, as all books should, but few do. The contents and their arrangement are again good enough to reward the responsible Editor, the Rev. J. Jacob, for his great pains and to bring him our thanks. With regard to the illustrations—such a book must necessarily have them—it is as difficult to know what to say as it must have been for him to choose and prepare them. But it is probably a just criticism to prefer the personal portraits to those of the flowers. It seems that colour can be satisfactorily represented only by over-expensive colour photography, or by some method of screening in plain photography which it has here been found impracticable to use. Accurate pen and ink outlines would put the flowers before us quite as intelligibly as these photographs.

For instance, the yellow and orange red *Ixion*, Fig. 2, is shown just as white all over as Mr. A. M. Wilson's pure white trumpet *Centaur*, Fig. 4. And the four blooms of *Santa Maria*, "of an exceptionally deep yellow," are shown in Fig. 6 as four colourless ghosts. The truth is that the older line engraving, wood, copper or steel, rendered colour infinitely better than the modern photographic process. The long line of *Empress*, Fig. 12, is surely rather a dreary record of unimaginative planting.

Of the contributed papers, far and away the most interesting is "Among My Seedlings," by Mr. G. L. Wilson, a somewhat new planet in the Daffodil sky. He can write English, an accomplishment not so common as is supposed, and has a singular power of turning his pen into a "colour brush." His account of the series of choice lemon yellows obtained from a cross between *King Alfred* and *Mme. de Graaff* is admirable and very attractive, e.g., "beautiful and decorative

very pale bicolors, with trumpets of exquisite cool tints of greenish primrose and pale greenish lemon, and on the backs of their petals often the sparkling green midrib of their grandparent *maximus*." This prompts a suggestion, by the way, that we have not yet done enough—indeed, we have done nothing—at our shows to foster fine discrimination of colour. Why should we not have classes for colour simply, independently of form; for instance, a prize for the best pale lemon Daffodil? Under the present wearisome and John Bullish ordinance that no flower shall be recognised unless it has the stereotyped flat, round perianth, many and many a seedling is thrown away as too loose or starry, which massed would exhibit new and delightful colouring. Even Mr. Wilson is over-much obsessed by the flat perianth. Would he or anyone "with half an eye" think to improve *maximus* by fitting it with the regulation cartwheel perianth in place of its exquisite spiral gold petals?

and Australia is emphasised in this issue. Besides an article on the New Zealand shows in 1914 by Mrs. J. Maclean of Oamaru (who travelled over 800 miles to see the flowers), there are full reports of the Auckland, Canterbury and other New Zealand shows, and of the Australian shows. The Year Book is brimful of everything in the way of record and statistic that the Daffodil-lover needs or can do without, including the irrepressible Daffodil fly, now agreeably increased into two equally spiteful varieties, both of which are well illustrated in all their stages. Pages 32, 33, 34, *pace* the Editor, are valueless. They tabulate 172 separate crosses as "successful" because they have produced seed, thirty-nine as unsuccessful because they have not. Mr. N. Y. Lower, who contributes the figures, himself observes very truly that lists of good seed and pollen parents are not of much use, as many varieties will seed in one district and not in another; also, it may be added, in one season and not in



A BEAUTIFUL BORDER OF PHLOXES. THEY MAY BE PLANTED NOW.

The reprint of two papers read by the late Mr. Peter Barr in Australia is welcome as a remembrance of the writer, and contains much information about the earlier Daffodil scientists and growers. But 1885 is surely a mistake or misprint; it must have been fifteen years later that Mr. Barr visited Australia. Mr. E. H. Jenkins' paper, "Reminiscences," has the same kind of interest, reaching back over forty years, when Messrs. Barr and Sugden were growing the entire ancestry of our present multitude of Daffodils in a few narrow beds at Tooting. These beds are fresh in the present reviewer's memory. There is always a charm in anything that comes—and it comes too seldom—from the pen of the Royal Horticultural Society's secretary. He writes about "Three Small Daffodils," and propounds the distressing heresy that *Narcissus triandrus* and *N. t. calathinus* are "the one so much like both that you can't tell t'other from which." The rapid oncoming of the Daffodil in New Zealand

another. Moreover, insects are always responsible for a percentage of results, and flowers manage to fertilise themselves in a remarkable way, despite the most careful depollination. And it is somewhat absurd to call a cross "successful" before the seedling has flowered.

TWELVE GOOD PHLOXES.

A CORRESPONDENT asks for a list of twelve good herbaceous Phloxes, with hints on their cultivation, ten to be of salmon, crimson or pink shades, one blue and one white. These fine herbaceous flowers are best planted in the autumn, although they may also be planted in February or March, providing the soil is reasonably dry and free from frost. Phloxes appreciate a liberal diet, and with this end in view the soil ought to be dug at least two spits deep and well



NEW COOKING APPLE REV. W. WILKS.
NOTE ITS FRUITFULNESS ON A VERY
YOUNG CORDON TREE.

manured in each layer, partially decayed farm-yard or stable manure being best. Water-logged soil is fatal, and that very sandy is almost as bad, though in a different way, inasmuch as Phloxes must have plenty of moisture at their roots during the growing and flowering seasons. When the plants have been established a year, the growths, when about 4 inches high, should be thinned to three or four to each plant, the shoots that are removed being suitable for cuttings, which many contend is the best method of increasing the plants. If the lower leaves are removed and the shoots planted firmly in boxes of sandy soil, they soon emit roots if kept in a close, slightly warmed frame. These cuttings can be planted out as soon as rooted, and most of them will flower late in the autumn after the old plants have finished. The young plants last in good condition for two years more, after which, in most instances, they are better discarded in favour of younger and more robust specimens. During dry weather copious supplies of water must be afforded every day, and if this can be supplemented once a week with weak liquid manure, so much the better. There are now so many excellent varieties that it is difficult to select a dozen which would meet with everyone's approval, but the following are all first-class and reasonable in price: America, bright salmon pink, with carmine eye, 2½ feet; Baron von Dedem, rich scarlet, very large flowers, 2 feet; Dr. Königshofer, orange scarlet, crimson eye, 3 feet; Embrasement, salmon scarlet, purple eye, 3½ feet; Etna, bright orange scarlet,

3½ feet; G. A. Strohlein, orange scarlet, carmine eye, 3½ feet; Goliath, bright carmine, crimson centre, 5 feet; Le Mahdi, violet blue, suffused bronze, 3½ feet; Mme. Paul Dutrie, soft rose, white centre, 3 feet; Selma, pink, with crimson eye, 3 feet; Tapis Blanc, white, 2 feet; Gruppen Königin, pink, carmine eye, 3 feet. The heights given are only approximate; they will vary somewhat with soil, situation and weather.

NURSERY NOTES.

MESSRS. J. CHEAL AND SONS, LTD.

ON the occasion of a recent visit to the Lowfield Nurseries of Messrs. J. Cheal and Sons, Limited, Crawley, Sussex, we were most favourably impressed with the immense stock of well-trained fruit trees to be seen there. Both Mr. Alexander Cheal and Mr. Joseph Cheal, the two genial principals of this time-honoured firm, anticipate a big run on cordon, pyramid and bush trees, and, happily, they are well prepared to meet a demand even in excess of that of last year. Standard, half-standard, espalier and fan-trained trees are alike represented on a very large scale, and include every variety worth growing.

The Value of Cordon Trees.—That there should be a greater demand for cordon trees than ever is not at all surprising when we consider the many advantages of this system of training. The trees come into bearing quickly. With varieties like Rev. W. Wilks, Gloria Mundi and Charles Ross, even maiden trees are often so heavily cropped that their fruits have to be considerably reduced. Then, again, cordon trees may be successfully grown in a limited space, and when trained upon wires or against a wall or fence they take up little room, and, unlike standard trees, they do not overshadow the garden at the expense of other crops. Pears and Apples are well adapted to this system of training, while Red Currants and Gooseberries may also be grown in this way with marked success.

Apple Crawley Beauty.—If there was one variety more than any other that attracted our attention by virtue of its bright colour and very heavy crops, it was this excellent late-cooking Apple of local origin. Like the Wise Apple, it is very late in flowering, thereby escaping injury from late spring frosts. In consequence, those who have grown it regard it as a certain and heavy cropper. The fruits hang upon the trees quite late in the season, and when stored they will keep till April or May. The shapely fruits are splashed with crimson, and they are even better in colour than Bismarck, while it crops heavily on young trees. Two other local Apples worthy of special mention are Nanny and Jolly Miller, both carrying exceptionally heavy crops of highly coloured fruits. Neither of them appears to be very well known outside the county of Sussex, but both are worthy to be in every collection.

Redwing is another favourite Apple at Crawley. It is a brilliantly coloured, medium sized fruit, in season in October, and is useful either for dessert or cooking purposes.

Exigencies of space prevent us from enlarging upon the fine stock of Pears, Plums, Damsons, Cherries, Peaches, Currants, Vines and other fruits, to say nothing of a vast collection of trees and shrubs, which have always been a feature of this firm, so long renowned for landscape gardening.

THE RASPBERRY-BLACKBERRY HYBRIDS.

BY EDWIN BECKETT, V.M.H.

WITHOUT doubt many of the hybrid and improved varieties of the Rubus family will play a very important part in the future in supplying the population with wholesome fruit.

It has long been a surprise to me that more encouragement has not been given in relation to the extended cultivation of even the common English Blackberry, when one considers that it grows luxuriantly in almost every locality and under the poorest conditions; that there is always a ready sale for the fruit, and, fortunately, that it is one of the fruits which adapts itself for preserving in many ways. But at the moment my thoughts are centred on the newer varieties, several of which are, I feel certain, destined to take positions in the majority of our English gardens. Fortunately, the majority lend themselves readily to cultivation in many ways. They are excellent for covering pergolas and arches, poles or pillars, and for training on buildings, or planting in large beds, and if judiciously pruned



A CERTAIN CROPPER. APPLE CRAWLEY BEAUTY.

and trained once a year, beyond regulating the growth and protecting the fruit when ripening, this is practically all the labour required. I propose to mention only a few of the best varieties which have come under my notice.

Blackberry Himalayan Giant.—A large and much-improved form which certainly strikes me as being the finest of its kind which I have yet seen. It is very vigorous and most prolific, the growths being covered with immense trusses of large, black, beautiful fruits which commence to ripen about the middle of August. The fruit when

and Raspberry Superlative. It is of fine appearance, of rich flavour, partaking much of that of the Raspberry. It is rather pendulous in habit, and succeeds best when trained to stakes or trellis. It grows freely on almost any soil, and, fortunately, is a perpetual bearer, commencing to ripen its fruits early in the season and continuing to do so till late in the autumn.

The Loganberry.—Too well known to need describing. With us it does splendidly, planted in large masses in the wilderness, and the fruit

purposes, several of them being extremely vigorous and producing large fruits, but, unfortunately, the flavour of the majority is poor and insipid.

AN IRIS FOR THE WATER-SIDE.

IRIS SIBIRICA can be depended upon to grow and flower freely if planted about the margins of lakes, ponds or streams where the roots are continually moist, and there are few showier subjects when it is at its best during early June.



THE SIBERIAN IRIS BY THE LAKESIDE AT KEW.

thoroughly ripe is of a delicious flavour, and quite worthy of a place as a dessert fruit. Messrs. Laxton Brothers of Bedford worthily received a first-class certificate for this Blackberry at one of the Royal Horticultural Society's meetings during the present season.

Newberry.—This variety has done remarkably well with us this year. Growing on a west border and trained like the Raspberry, it produced a wealth of luscious fruit much superior, in my opinion, to that of the Loganberry.

The Laxtonberry.—This most promising variety is the result of a cross between the Loganberry

is much appreciated for cooking purposes. It preserves splendidly.

The Lowberry.—This is another hybrid possessing much merit. It should be grown in full sun and be severely pruned.

King's Acre Berry.—This ripens early and has the appearance of a very large Blackberry. It has a very fine flavour.

Many of the new varieties of *Rubus* introduced from China by Mr. Wilson are extremely ornamental, but are of little use for commercial purposes. I am inclined to think, however, that these will make excellent material for hybridising

Throughout the growing season the grass-like leaves present a pleasing change from coarser vegetation, whereas the tall, slender flower-scapes, growing to a height of $2\frac{1}{2}$ feet or 3 feet, terminated with lilac purple or bluish flowers, are most attractive.

Added to this, it gives comparatively little trouble, for, once established, it grows for several years without attention other than keeping it clear of coarse weeds. When the clumps become overgrown, they are easily put right by dividing up into smaller sections as soon as the flowers fade.

MY COTTAGE GARDEN IN HAMPSHIRE.

A TINY plot of under half an acre all told, in a Hampshire hamlet, and as I look from the little lattice window over a dream of "Carnation, Lily, Lily, Rose," I can hardly believe that less than two years ago a very different view met my gaze—two square beds of decayed vegetables edged with long-neglected herbaceous borders, and divided by a gravel walk that ran up the entire length, disappearing in a ditch of Ferns, through which a neighbouring broom-maker, bent nearly double with his ninety odd years, peered through from his own small plot at this scene of desolation. The cottage was commonplace and ugly, the garden an uninterrupted dead level from end to end, but for a bank that ran down the side of the plot separating it from the beautiful Pine



A TRANSFORMED COTTAGE AND GARDEN.
The pathway is flagged with York stone squares and bordered with Lilies and Roses.

wood beyond, and which was a thing of beauty, pale gold and thick with Primroses and Daffodils, and in this I had my dream!

It did not take long to transform the dwelling, but the garden was a question of patient care and attention through the first winter months, and also not a little artistic selection in planting.

And let no one think that many hands combined to make this labour light. To an old villager whose "rheumatiz" was, alas! more regular than his hours of labour was allotted the spade work, while the rest was a labour of love divided.

It may interest some to know what this tiny place contains; and that it is laid out to some advantage the accompanying illustration may prove.

All the paths are flagged with York stone squares, through which peep the modest Violet

Cress, red and white Mossy Saxifrages, and Linaria; and Alyssum Little Dorrit scrambles defiantly up and down and in between the stones, throwing up fairy bushes of snow. To relieve the long straight line, the path is partly sunk, and a circle made where an old sundial is to be placed "when the war is over." I should like its shadowy finger to mark that date of Peace for the world for all time, and never to move again! (But I have yet to find the dial, and they are luxuries these hard times.)

The rustic arch across the path further on is still gay with the cerise blooms of Rose Zephyrine Drouhin, and the light square trellis which runs right across the garden at right angles and encloses a tiny rosary beyond still holds blooms of Rêve d'Or, Mme. Pierre Cochet, Gastave Regis, Perle d'Or, Félicité Perpétue and Stella.

At the end of the garden the ancient neighbour has been excluded by a high double hedge of Arbor-vitæ and Taxus baccata, which successfully hides from his inquisitive gaze the rosary, in the centre of which stands a fine old stone bird bath, a permanent invitation to the feathered intruders who certainly preside over this little garden. Someone has written that "a pleasure garden, however small, should have its presiding genius, its nymph of the pool, the woodland, the grove or the well, to give a personal interpretation to the forces of Nature," so that the piece of sculpture here placed is surely a necessary adjunct and gives a last touch of colour in the picture. The grass plots are broken up with Rose beds to form a uniform design, and have been gay all the summer with Lyon Rose, Mme. A. Chatenay, Elaine, and such old favourites as Warrior, Irish Elegance, Earl of Pembroke and Caroline Testout. Two narrow beds in front of the window are still a mass of bloom of Mrs. W. H. Cutbush and Aschenbrödel, all planted where but a little more than a year ago flourished the Potato and Turnip of commerce at their own sweet will.

On either side of the long flagged path and edging the lawns are the herbaceous borders, backed with tall Larch posts for Ramblers, placed at intervals of about 8 feet apart. These borders have been a succession of bloom, from the cloudy, early effect of London Pride, Myosotis, Clove Pinks and Thrift to Delphiniums in their heavenly blues, and perennial Asters in purple hues.

The cottage itself hides behind a Vine on the south-east side, planted many years ago; and on the south, Rose Fortune's Yellow, Mme. Alfred Carrière, and Clematis Viticella kermesiana, with its lovely trails of wine-coloured flowers. The more familiar Jackmanni has hung its deep purple-blue blooms over the bay window ever since June in a dense mass.

The north side of the cottage is given over to the growing of Gooseberries, Currants, and the few vegetables required for the modest household of the present owner, a musician who can delight huge audiences in London, and who spends her precious hours of rest in the "garden that she loves."

B. L. S.

CHARITY BEGINS AT HOME

BY THE REV. JOSEPH JACOB.

"CHARITY begins at home" is one of those proverbial sayings the truth and appositeness of which no one, theoretically at any rate, disputes. When, however, the opportunity comes of putting the sentiment into practice, a red herring is sometimes drawn across our purpose and we go and do otherwise. By means of a very considerable advertisement in the papers, the Horticultural Trades Association of Great Britain and Ireland has lately given us a jog about this, with regard to the buying of bulbs. The Editor of THE GARDEN has asked me to "say a few words." I gladly do so, for I am pleased to do my "bit" for our common cause in any way I can, and I am more than glad that, unlike one of the great dailies, which refused the advertisement, *our little paper* has a fellow feeling for our own horticulturists, many of whom have been very badly hit indeed by the war. In a way, I am an amphibious sort of person, or a sort of father confessor, and in writing the concluding words of the last sentence I was only saying that which I personally know to be a fact. Our growers must somehow keep on growing, for bulbs and plants cannot just be put on one side and not used. Our retail traders have working expenses going on all the time, and they have to provide for a custom which more likely than not has never come. In war-time, if ever, our highest and soundest policy is to remember that "charity begins at home." Misplaced sympathy is one red herring. There are others. First, the old idea that all Dutch-grown bulbs are better than British. On the very afternoon of the day on which the Editor asked about this article, I met a friend, who, knowing nothing whatever about what we had been saying, told me, in the course of ordinary conversation, of a neighbour who had within the last week sent an order for nine pounds' worth of bulbs to Holland, *because they were so much better than he could get at home.*

It may have been necessary for Henry VIII.'s last queen, Catherine Parr, to send over there for her salads. Why, however, do some people in the present year of grace think they must follow her example in order to get good bulbs?

With the exception of Hyacinths, all the great popular spring, summer and autumn flowering bulbs can be produced quite as well within the narrow confines of our islands as anywhere else. I feel sure our growers would be doing themselves and the country a real good turn if they were to hold a show of their own home-grown produce in late July or early August next year. A high official of the Royal Horticultural Society has been approached, with the result that he has said that if the idea is taken up by those who are in a position to support it, and if they will undertake to send samples of what they can do, he has every reason to believe that the Council will provide all necessary facilities. Accordingly, I appeal to all growers, great and small; to those who live in Anglesey, Jersey and Guernsey, no less than to the dwellers in Great Britain and Ireland, to "take the matter up." Write your ideas about this at once to THE GARDEN, and I can promise that if support is forthcoming, "the powers that be" shall know of it.

In these months of stress, no false scent should be allowed to turn us from the right way.

NOTES ON VEGETABLES.

ONE of the most valuable ingredients in successful vegetable culture is what is known as decayed vegetable refuse added to wood ashes, old potting soil, road grit, decayed leaves and spent Mushroom-bed materials. Where the soil is heavy, it is not so porous as other soils, but with the aid of deep



ROSE LEAF ATTACKED BY BLACK SPOT.

trenching and the annual addition of the compost noted, it is surprising how quickly a bad plot can be brought into a desirable condition. For Potatoes especially is such a compost valuable; indeed, it is difficult to suggest a crop which it will not benefit in some way or another. Now is the time to collect a quantity of vegetable refuse. All leaves of the Brassica tribe should be collected into a heap, adding freshly gathered leaves and wood ashes, occasionally turning over the heap and adding at that time freshly slaked lime.

Fallen leaves, too, should be collected and kept in a heap by themselves, to be used in the making of hotbeds or for conversion into leaf-mould, which is valuable to mix with soil of an uncongenial character when pricking out seedlings.

Autumn Onions now a couple of inches high would be all the better with the surface soil stirred during dry weather, first sprinkling soot over them and the soil. If the latter is heavy, add wood ashes, as these have an ameliorating effect when applied to the surface and gradually mixed with the soil about the roots. The main crop of summer-grown bulbs should be examined, assuming they are in a dry shed. Remove any loose skins and roots, and either string them on ropes or lay them thinly on shelves in a cool, dry room.

Turnips.—Bulbs which are of full size from earlier sowings should be lifted and stored in sand or ashes at the back of a wall with a northern aspect, covering the outside with long litter or leaves in case of frost. Stir the surface soil among

growing crops and, as a protection, draw soil over the crowns of the bulbs. This preserves their succulence as well.

Beetroot should be lifted and carefully stored in sand in a frost-proof shed, cutting off the leaves to within 2 inches of the crowns.

Parsnips should remain in the ground until required, drawing soil over the crowns to protect them from frost, as this is liable to rot that portion. If severe frost is apprehended, cover them with litter as well as the soil. A few for immediate use may be taken up and stored in sand.

Swanmore.

E. MOLYNEUX.

BLACK SPOT ON ROSES.

[A Reply by Mr. Edward Mawley, V.M.H., President of the National Rose Society.]

IT will be exceedingly interesting if Rose-growers among your readers who have had any experience of black spot in its virulent form will state whether they have met with any success in dealing with this scourge. It is only, I imagine, during the last two or three years that its ravages have been so serious. Is it confined to certain districts—the West of England, for instance—or has it spread all over the country? It is not only that the bushes become leafless, in a greater or less degree, but the growth is stunted and the weaker plants die away. I find all sorts of Roses are attacked. The Pernetiana and Austrian Briars are most susceptible, but Hybrid Perpetuals are no more immune than Hybrid Teas, Chinas and Noisettes. Among those that suffer most severely are Juliet, Lyon, Grüss an Teplitz, Snow Queen, Francesca Kruger, Lady Roberts, Soleil d'Or and Marie Baumann. With regard to treatment, I found this year that Bordeaux mixture was absolutely useless. It was given a complete and thorough trial.

I agree with your correspondent "T. A. W." that it will be most interesting to hear what Mr. Edward Mawley has to say on the subject. And one would much like to know the later experiences of Mr. Darlington, who contributed to the Rose Annual for 1914 an exceedingly valuable article on the subject full of interest. H. V. B.

We forwarded our correspondent's letter to Mr. Edward Mawley, V.M.H., President of the National Rose Society, who kindly sends the following reply:

"This is a comparatively new enemy of the Rose, and is supposed to have come to us some years ago from the other side of the Atlantic. It is only in recent years that it has made its appearance in my own garden, where, however, it has gradually secured a footing. As stated by correspondents in recent issues of THE GARDEN, it has a great partiality for certain varieties, such as Grüss an Teplitz and Juliet. I have up to the present time kept black spot in check by simply removing, as far as possible, every leaf on which the disease made its appearance, and by picking up and burning all fallen foliage which is affected. In this way I have managed to keep the complaint fairly well in check. Nevertheless, every year a few more plants fall victims to it than in the previous year. I can, therefore, only recommend at this time of year the removal of the worst of the affected leaves found on or under the plants and burn them, and then at the end of the flowering season to do the same.

"I wish I could afford better help, for I can plainly see that my own Rose garden is not nearly as badly

overrun with black spot as that of either of your enquirers, "H. V. B." and "T. A. W." In fact, not more than 5 per cent. of the Roses in my collection is affected. What I have stated may, however, be of service to many of your readers. I have heard of several remedies being suggested, but have not myself tried any of them, and cannot report on them from personal experience. I feel sure, however, that many of your readers would be glad to learn of any fungicide which could be depended upon year after year to keep a Rose garden now badly affected with black spot free, or, at all events, comparatively free, from this new and destructive enemy of the Rose. It is therefore to be hoped that this correspondence in THE GARDEN may lead to some simple and really effective cure of this cruel disease in our Rose gardens being communicated to its pages."

RUST ON ROSES.

THIS disease is prevalent on Briar Roses. It is caused by the fungus *Phragmidium subcorticatum*, and its first appearance is quite early in the season, in the form of bright orange masses of spores bursting through the bark. They leave cankerous-looking spots on the stems, and, being carried to the foliage, attack it, producing orange or brown and in autumn black spots on the under surfaces of the leaves. These spots are small masses of spores, for the fungus is out of



ROSE LEAF AND LEAFLET ATTACKED BY "RUST" DISEASE.

reach inside the leaves. Something may be done by spraying with Bordeaux mixture or with a rose red solution of potassium permanganate in the spring at the time the stem stage is about; but the main thing to do is to destroy the dead leaves on which the black spore masses occur in autumn as soon as possible, and so prevent the infection in early spring, which comes only from these black spores. This fungus is very common on Dog Roses in our hedges.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Forcing Strawberries.—Gardeners are sometimes called upon to produce ripe Strawberries in February. The first consideration must be the ripening of the crowns. If there is any doubt about them being well matured, they should be left in their summer quarters as long as the weather will permit. About the middle of November they may be placed in a shallow, heated pit. If convenient, a hot-bed of moderate warmth should be made in which to plunge the plants, and this must be elevated quite near to the glass. For the first two or three weeks a temperature of 45° or 50° will be quite sufficient. This can usually be maintained without the aid of artificial heat. Fire-heat must be used sparingly at all times.

Plants Under Glass.

Roses in Pots.—The present is a suitable time to procure Roses for growing in pots. A few of the climbing varieties should be potted annually, as these are invaluable for furnishing the conservatory or show houses in the spring. The following varieties are all suitable for this purpose: Dorothy Perkins, Minnehaha, Hiawatha, Blush Rambler, Goldfinch and Electra. Of dwarf varieties there is now a wide selection, but it is best to have a few reliable sorts, especially if flowers are needed for table decoration. Mme. Abel Chatenay, Mrs. J. Laing, Liberty, Richmond, Kaiserin Augusta Victoria, Sunburst and Lady Hillingdon are all excellent for this purpose. Some of the strong roots must be shortened before potting. Use a compost of loam, leaf-soil and lime rubble. If the loam is poor, add a little crushed bone and soot. When potted, plunge the pots in ashes in a sheltered situation.

Roses Planted Out.—Roses growing over the roof of the greenhouse or conservatory will now be in need of pruning or thinning. This must be done more or less according to the variety. In all cases the flowering wood must be well exposed to the light. The variety Fortune's Yellow often makes a lot of lateral growth, which requires to be cut back to one or two buds. The roots should still be given plenty of water, which must be supplemented occasionally with a stimulant.

Freesias.—A batch of Freesias may now be placed in a light house with a little warmth. Place them on a shelf near to the glass, for they must not be allowed to become drawn at this stage. The pots will now be full of roots, and a little stimulant will be beneficial. An occasional weak dose of soot-water will be sufficient for a week or two.

Achimenes.—These will now have died down, and the pots may be placed under the stage in a cool house. Lay them on their sides so that water cannot reach them.

Forcing Shrubs.—There are many beautiful shrubs suitable for forcing, and the present is the most suitable time for potting them. Such plants as Laburnums, Lilac, Prunus triloba, Staphylea, Viburnums, Spiræas, Cerasus and Pyruses may be dug up and potted in any ordinary soil. When potted, plunge them in ashes till they are required for forcing.

The Flower Garden.

Montbretias.—The corms of Montbretias should be lifted annually and wintered in boxes of dry soil in cold frames. Lift them as soon as the foliage has died down, or the corms will start to grow. It is necessary to separate the small bulbs from the large when planting. If required, the small bulbs may be planted in reserve beds, where they will grow to the flowering size.

Gladioli.—Corms of Gladioli may also be taken up and stored in a frost-proof shed. They may first be placed closely together in boxes till the foliage has died down. They must then be cleaned, carefully labelled, and stored away for the winter.

Early Flowering Chrysanthemums.—There are many good varieties of Chrysanthemums suitable for growing outdoors, and the best only should be retained. When these have finished flowering, they must be lifted and planted closely together in boxes, carefully labelling each variety.

Place the boxes in cold frames till the spring, when they will be required for propagating.

Lawns.—Any alterations to lawns may be done when the weather is suitable. New turf laid now will be quite settled by the spring. If worms have been troublesome on tennis lawns, they may easily be destroyed now, as they are quite near the surface. Lime-water is cheap and effective. This should be applied in the afternoon.

The Hardy Fruit Garden.

Root-Pruning.—The season has been favourable for ripening the wood on all fruit trees, and, where necessary, the sooner the work of replanting and root-pruning is done the better. In planting new trees on walls, the old soil should be cleared out and replaced with new. If the subsoil is heavy and retentive, plenty of drainage materials should be placed under the new soil. A quantity of old brick rubble must be mixed with the new materials. If the loam is good, no manure of any kind is necessary. This can be given later on when the trees are in bearing.

The Kitchen Garden.

Onions.—The bulbs must be carefully looked over at intervals for the removal of those which are blemished. The whole of the stock should be moved, and those which are not likely to keep must be placed by themselves for immediate use.

Celery.—The late plants must be earthed up as required, but it is not wise to do this to excess till there is danger of very severe frost. Much care is necessary in doing this work now, so that the soil does not fall into the centre of the plants.

Turnips.—The roots which are large enough for use may be lifted and stored in a shed, or, failing this convenience, covered with ashes outdoors. Later crops must be left in the ground till there is danger of severe frost.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

The Flower Garden.

Lobelia cardinalis.—In the more favoured districts this brilliant subject is more or less hardy, but undoubtedly the safest method is to winter it in frames. If put in boxes, it will be more convenient for starting in springtime. On no account try to increase it at this season by division, as it resents disturbance until growth has recommenced during the spring, when it splits up quite freely.

Violas.—Except in very severe or wet weather, the lights may remain off for some days yet. Weeds and decayed leaves should be picked off, as, where these remain, damping is more likely to take place. When the lights have to be replaced, ventilate on all mild days, only closing them when the frost is severe. Avoid coddling in any form, as the Viola is a very hardy subject under natural conditions.

Flower Beds and Borders.—Where there is no spring bedding, the vacant ground should be cleaned and made tidy for the winter. Digging and, where necessary, trenching should be done, so that the soil will derive all the benefits from being exposed to the frost and rain of the coming winter.

Sweet Peas.—The sowing of the autumn seeds in pots for flowering next summer should be completed before the very short days approach, as, if sown then, the germination is not nearly so strong. Ventilate freely and apply water only when really needed.

The Rock Garden.—Protect now with glass those subjects which are known not to survive when left exposed to the winter rains. Many of the plants should not have their foliage cut down, as is sometimes practised. It is in many plants a fine and natural form of protection from both rain and frost.

Fruit Under Glass.

Pot Strawberries.—The young plants having now completed their growth for this season, there is nothing to be gained by leaving them in their present position. Some growers place

the plants on their sides and stack them with ashes around the pots; but as they cannot be watered in this position, harm would come from it through the plants becoming too dry during windy weather. The best method is to plunge the pots up to the rims in ashes inside cold frames; but where these are not available, protect with 5 inches or 6 inches of freshly fallen leaves. Care must be taken that the foliage of the plants is kept above and not buried when plunging them.

Vineries.—Midseason Vines should be given every encouragement to ripen their wood, so that it will be possible to get pruning over in good time, and the houses cleaned early to enable the Vines to have quite three months' rest. This resting period is very important, and where it is not given strict attention, the Vines quickly show the ill-effects by poor growths and consequently poorer fruit crops.

Plants Under Glass.

Cyclamen.—Plants commencing to flower should have frequent applications of manure given in the water. Weak soot-water is very suitable if not overdone. Plants raised from seed sown in August will soon be ready for potting off singly into 3-inch pots. Use plenty of leaf-soil and coarse silver sand in the compost when doing this. Seed may still be sown for producing useful plants which will flower in 4-inch pots during next winter.

Poinsettias.—The bracts of these plants are already forming, and it is from this stage onwards that great care is necessary in watering and in the maintaining of even temperatures if the foliage is to be retained. The atmosphere must now be kept somewhat drier, but a minimum temperature of 60° should be maintained. The same treatment applies to Euphorbia jacquiniæflora, but this plant is usually a month later in flowering.

Lilium Harrisii.—As the bulbs commence to grow, remove them to a position near the glass, where a sturdy growth may be expected. Grow in an intermediate temperature, and do not top-dress until the roots commence to appear above the bulbs. Keep a constant watch for green fly, and spray with an insecticide on its first appearance.

Protection of Plants Outdoors.—Such plants as Azaleas and Roses, which were perhaps forced and plunged outdoors to complete their growth, should now be grouped closely together, and a depth of 6 inches or 7 inches of new leaves laid on to protect the pots from becoming cracked by frost. Care should be taken to see that the roots are sufficiently moist before covering with leaves, as then they will need no further attention until taken indoors.

The Kitchen Garden.

Lettuce.—Any blanks which have occurred among those recently planted out should be filled with the surplus seedlings remaining in the seed-bed. If slugs are troublesome, a dusting of soot should be given; or, if the weather is very wet, some gritty material, such as sharp sand, must be applied. This does not get washed into the soil so quickly as soot.

Radishes.—Further supplies will now have to be obtained by sowing either in heated frames or pits. For economising space the seeds should be sown broadcast, thinning out the Radishes as required for use.

Mustard and Cress will now have to be grown in heat to make certain of a regular supply being kept up. Sowing thickly in boxes is the most convenient method, and placing over pipes, where germination quickly takes place. To have both ready for use simultaneously, the Cress should be sown three days previous to the Mustard.

Weeds.—Every opportunity should be taken to rid the garden of as many weeds as possible before the very wet weather in winter commences. Where annual weeds have not reached the seeding stage, they can be dug into the ground without any fear of reappearance at some future time.

Mushrooms.—Beds must be regularly made up whenever sufficient material for making them has accumulated. Those which are made up and spawned at this date will produce Mushrooms from Christmas onwards. The temperature in the Mushroom-house should not be allowed to exceed 60°.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)
Castlemilk Gardens, Lockerbie, N.B.

PLANTING FRUIT TREES.

BY GEORGE BUNYARD, V.M.H.

AS November draws near, a few practical hints on this subject may be helpful to intending planters. Where possible, it is best to plant before Christmas, but the work can also be done successfully up till April, when the soil is friable. Owing to the war, some delay in transit must be expected in the delivery of orders this season, but no harm can come to packed fruit trees. Should the roots be dry and the shoots shrivelled on arrival, an immersion in water for twenty-four hours will plump them up, and in most cases where the roots only are in water.

Distance to Plant.—In order to allow for extension, the different forms of trees should be planted as follows: Standards in gardens, 24 feet; standards in orchards, 18 feet in grass; espaliers and wall trees, 15 feet apart; cordons, which, by the way, do as well upright as on angle, 2 feet apart; bushes to form "basin" trees, 12 feet apart; pyramids, 10 feet, or 5 feet to start, taking one out when needed; Gooseberries and Currants, 6 feet apart; Gooseberries and Currants (cordons), 1 foot apart; Gooseberries and Currants (if trained), according to form. On walls there will be spaces between the fruit trees for flat trained Currants or Gooseberries for a few years, while Tomato plants can go on the south walls between the trees.

Thinning the Fruits.—When Apples and Pears are the size of a Nutmeg, it is best to thin the fruits where they occur in bunches to one or two fruits, and to regulate the fruits well over the whole tree. In this way all the fruits produced will be of a nice size and be of better quality than where the trees are overloaded. Trees that crop heavily should be mulched in May with half-rotted manure, and be watered in dry weather. Where manure is not available, half a pint of Clay's Fertilizer sprinkled over a circle of 4 feet across round the stem and then hoed in will be beneficial, watering it in from time to time. No manure should be given to trees without fruit, as it only encourages them to form wild wood. Fuller information can be found in the admirable and concise directions given in the pamphlet, "Hardy Fruit Trees," which can be had in return for 2d. stamps from the Secretary, Royal Horticultural Society, Vincent Square, Westminster, London, S.W.

After Unpacking, examine the roots and cut away any damaged ends; and as it is the surface roots which are the most valuable, any strong roots which point downwards should be shortened to 6 inches from the main bulk of roots; then dig a hole 2 feet over and 1½ feet deep, and below this break up the soil, make a little mound in the centre of the hole, and place the tree upon it. Begin to fill in, raising the upper roots as the work of filling in goes on. Gently press down each layer of roots, giving the tree a little upward shake as each layer is completed. Before finally filling in, observe the earth mark on the stem of the tree, and let it appear an inch above the level for standard, espalier and wall trees; then firmly tread the soil in the hole. On the top of this firm soil lay some fine soil, and the work is done, except that in some cases a stake may be needed to steady the tree. Bind some old sacking or straw where the tree is tied to the stake, to prevent rubbing of the bark. Note,—The ordinary

soil of a garden is rich enough for any fruit trees, and no manure is needed at this stage. Now, in the case of cordon, pyramid or bush trees which are worked on Paradise stock for Apples and Quince stock for Pears, *it is most important to let the junction of stock and scion be 3 inches under the surface*, otherwise growth will be checked.

If planted before January, bushes, pyramids and standards may be pruned back, say, to 6 inches beyond the two-year growths; but cordons and espaliers are best left to be regulated in the summer. Wall trees, such as Plums and Pears, if fan-trained, may have their young shoots cut back to a foot of the two previous years' growth; but horizontally trained wall trees are best left unpruned.

If any ill-placed, strong shoots appear on the cordons or espaliers in the following summer, they had better be left till August 1 before removal. At this time any spray or thin shoots in the centre of bush or pyramidal trees should be shortened back to four leaves, and spur-pruning should take place; that is, on the boughs several shoots may start which are not needed, and they should be cut back to four eyes to form fruiting spurs in the future, but leave the "leader" shoots the full length. This keeps up a flow of sap and strengthens the shoots cut for spurs. These leaders should be cut back to 6 inches in March; but in no case should the leaders of cordons be cut back, unless bare spaces occur, as it is often difficult to get a good lead afterwards.

Do not let the jobbing gardener plant your trees unless you superintend the work, as he comes under Kipling's words in his poem, "The Glory of the Garden":

"And some can pot Begonias and some can bud a Rose,

And some that can't be trusted with anything that grows."

In planting Raspberries the roots must not be deeper than 4 inches, and the canes must be cut back to a foot to induce spawn canes to throw up for the next year's fruiting.

Gooseberries should be cut back freely in planting, also Red and Black Currants. They will then form strong shoots to make nice basin-shaped trees. Both Red Currants and Gooseberries can be spur-pruned in; but Black Currants fruit on the young wood, and must be left the full length, merely cutting out year by year the old shoots that have fruited. By doing this the berries will always be large, and not hard and full of seeds. The summer pruning of Red Currants and Gooseberries is done in July after the fruit is gathered, the object being to get spurs on the main branches, and, as with Apples, &c., the leader shoot is left full length, to be cut back in March to extend the bushes 6 inches a year until they are large enough. All these bush fruits can now be supplied as flat trained trees for trellises or as cordons, from which fine fruit is taken. Gooseberries fruit on the young shoots, and, if desired, the strongest shoots can be left full length, merely cutting away ill-placed shoots and keeping the bushes thin in growth, as only poor berries will be produced if the bushes are a mass of useless wood.

For the guidance of amateurs I now give a select list of those fruits which do well, as a rule, in any form, all being free bearers of good quality.

Apples for Eating.—Early: Gladstone, Lady Sudeley and Ben's Red. Midseason: James Grieve, Allington Pippin and Cox's Orange Pippin. Late: Cockle Pippin, Baumann's Red Reinette and Sanspareil.

Apples for Cooking.—Early: Victoria, Grenadier and Golden Spire. Midseason: Rev. W. Wilks, Warner's King and Lord Derby. Late: Newton Wonder, Bismarck and Alfriston.

Pears.—Early: Colmar d'Été, Beurré d'Amanlis and Doyenné Boussoch. Midseason: Conference, Louise Bonne of Jersey and Emile d'Heyst. Late: Durondeau, Doyenné du Comice and Belle Julie.

Plums.—Early Prolific, The Czar, Denniston's Gage, Jefferson Gage, Victoria and Belle de Louvain.

Damson.—Bradley's King.

Cherries are of little use in villa gardens, but Morellos make fine bushes and are indispensable for north walls.

Black Currant.—The Boskoop.

Red Currants.—Dutch and Knight's Sweet.

White Currant.—Dutch.

Raspberries.—Superlative Red and White Antwerp. Autumnal: The Alexandra.

THE CHRYSANTHEMUM AND ITS ASSOCIATIONS.

THE first of the series of educational lectures organised by the National Chrysanthemum Society for the season of 1915 was delivered on Monday, the 4th inst., by Mr. Harman Payne at Carr's Restaurant. The title was "A Chat about the Golden Flower: Its Poetical, Mythical and Romantic Associations." There was a good attendance, especially of ladies, and the meeting was presided over by Mr. Thomas Bevan.

Except for a short interval in the middle, the lecturer discoursed for about two hours on the various curious and interesting stories, myths and legends pertaining to the Chrysanthemum in the Far East. Interspersed with these were some translations of Chinese and Japanese poems relating to the flower. The audience listened with the greatest possible interest to the lecturer's remarks, and frequently expressed their appreciation of the way in which the subject was dealt with. It was quite out of the ordinary run of a horticultural discourse, and was practically a literary effort which displayed an amount of research in a field little dreamed of by those present.

There was a large number of lantern slides shown, many of them quaint and original, not the least interesting being those that depicted some of the effigies and mythical scenes from Japanese stories built up with living plants of Chrysanthemums by the clever florists of Dangozaka. Beginning with Confucius and ending with Dr. Neesima, the first Christian teacher of Japan, who introduced Mrs. Alpheus Hardy, the famous hairy Chrysanthemum, into America, the story told by Mr. Harman Payne was one of absorbing interest.

The next lecture will be by Dr. Keeble on November 3 at the same place. Mr. Percy Cragg gives the final lecture on December 8.

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

Offices: 20, Tavistock Street, Covent Garden, W.C.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

PÆONIA OFFICINALIS LOBATA (C. S.).—This beautiful Pæony was figured in Sweet's "British Flower Garden" as long ago as the year 1838, and although in cultivation since that time, does not appear to have become common in gardens. It is of the same habit as the type, growing 18 inches to 2 feet high, and produces elegant, almost cup-shaped flowers of a rosy pink shade.

VARIOUS QUESTIONS (A. K.).—The Sweet Williams should be quite good for another year, and had they been divided and replanted after flowering, would have shown an increased vigour. The seed may also be sown at once in the open; the seedlings will provide excellent plants in due course. The Deutzias should have been pruned to near the ground weeks ago; it is late for such work now, as no new growth that would be of service could follow before frost arrived. In any case, however, the pruning might be risked, with transplanting and division, if possible, into a richer soil. Yes, the Persian Cyclamen are those grown in the greenhouse. Follow the instructions given in the article referred to. Seakale is benefited by light dressings of salt twice or thrice yearly, and one might be given now. Liquid manure or mulching with manure may be given with advantage, the latter preferably in autumn, the former from October to March inclusive. We could not say what has caused the Currant bushes to be stripped of their leaves without seeing them or knowing more about them. It is probably the work of a caterpillar, but of this there should be evidence at first hand.

GROWING ALPINES (X. Y. Z.).—Ordinary kitchen garden soil will require much preparation before it is suited to growing alpine, unless you elect to grow only the more vigorous types, e.g., Aubrietias, Arabis, the big-leaved Saxifrages, Adonis, Arnebia, alpine Phloxes, Hepatica, the free-growing Bell-flowers and the like. The fact that it is also fairly heavy should cause you to concentrate your attention on such as we have named. Your enquiry, however, concerns the soil and preparing it for planting with alpine. As it is kitchen garden soil, it is doubtless rich in humus, a condition which will require modification. The best way to do this would be to apply to the surface a considerable dressing—it will hardly be possible to overdo it—of grit, leaf-mould and old mortar in mixture, incorporating it with the first 6 inches of the staple soil. This dressing might extend to a foot in thickness if the material is obtainable. If not, any very sandy, poor, or even stony soil would make a good substitute. You do not say whether you intend growing alpine in conjunction with rockwork or not, but if so, and the arrangement took the form of a rockery border or "flat" rockery, the stones should be first placed in position and the lighter soil added subsequently. By this means the need of adding soil to the whole area would be averted. As you do not contemplate planting before next spring, there is ample time for preparing the soil. Meanwhile, a heavy dressing of lime should be first applied to the surface. As you suspect insect life, gas-lime would be best, forking it in and allowing the ground to lie idle for a few weeks. If this is not available, secure fresh lime, put it down in mounds of two bushels each, and cover it with soil to slake it. This done, it should be spread thinly and dug in at once. The lime you refer to, if air-slaked, would do, but would be less effective by reason of age. If it has been exposed to rains it will not be of much use. The gas-lime above named should not be used unless a considerable depth of surface soil is to be added subsequently, and a lapse of at least four months should be allowed between the time of application and planting. Otherwise it might prove injurious to the plants.

TREES AND SHRUBS.

BEECH TREE STOOL (A. M. C., Okehampton).—The stump and roots of the Beech will gradually decay. Unlike an Elm, the Beech does not throw up numbers of suckers. To prevent shoots starting round the base of the stool, chop off as much of the outer bark as possible with a hatchet. To hasten decay, bore six holes 2 inches in diameter and 9 inches deep, spread over the surface

of the stool, put saltpetre to a depth of 3 inches or so in the bottom of each, fill with water, and plug with wood. The roots in the Azalea bed can do no further harm.

LAVENDER FOR PROFIT (Herbal).—The essentials to the cultivation of Lavender for profit are cheap land and a soil that is light or sandy, or light loam overlying chalk. Comparatively poor, stony soils are also well suited to it; but in heavy, retentive clay the plant is less responsive and good, also less productive. As the chief source of income would be from the flowers—though much money might also be made by raising young plants in quantity for sale—cheap land is a necessity, since few other crops could be grown in its company. In short, it is best to cultivate it apart from other things. For this purpose a good strain of *Lavandula Spica* is the best, though some of the dwarf French forms are earlier in flowering, and welcome on this account. Quantities are disposed of annually in all our larger markets when the plant is in flower, and much is used also for purposes of distillation. While one of the most popular plants, we should not consider it a particularly profitable one to grow unless under the above-named conditions.

KITCHEN GARDEN.

CUCUMBERS DISEASED (A Surrey Beginner).—The Cucumbers are suffering from an attack of Cucumber scab. Probably the house has been subject to fluctuations of temperature and the ventilation has been at fault.

CELERY DISEASED (A. B. Walford).—The Celery is attacked by the Celery leaf-spot fungus, *Septoria petroselinii* var. *Apii*. This fungus has been very abundant during late years, and is best kept in check by spraying with Bordeaux mixture at intervals of three weeks or so from May onwards. The seed is very frequently infected, and the disease is distributed from place to place by means of infected seed.

TO PRESERVE RUNNER BEANS (Pickles).—Select young, tender pods, place in boiling water with a little salt for about three minutes, after which carefully pack in suitable bottles, fill with hot water and a little salt. Then stand them in the boiler in water of the same temperature as that put into the bottles, place rubber rings, lids and clips on the bottles and bring to boiling heat, which should ensure them being airtight.

CELERY LEAVES DISEASED (J. W. Young).—The Celery is attacked by the Celery leaf-spot disease, due to the fungus *Septoria petroselinii* var. *Apii*. Destroy all badly affected plants by burning them. Do not permit them, or refuse from the plants, to find their way to the rubbish heap. Spray the remainder with Bordeaux mixture. It is almost too late this year to do this, but it is well to remember that the disease is frequently spread by the seed, which is often infected. As this is the case, care should be taken to get clean seed, and as a precautionary measure spray with Bordeaux mixture from mid-May onwards.

POTATOES DISEASED (H. T. G.).—The Potatoes are attacked by the common Potato scab bacillus, which does no harm whatever to the tubers, except that it spoils their appearance somewhat. The disease is only skin deep, and attacked Potatoes appear to be rather more mealy than those which are free. The tubers may be used next year for seed, and if it is desired to kill the parasite they may be steeped, before sowing, for about twenty minutes in a solution of one pint of formalin to two hundred gallons of water.

MISCELLANEOUS.

LEAVES SENT FOR EXAMINATION (E. T. Lightfoot).—There is nothing wrong with the Poplar or Ivy leaves, while the injury to the Oak leaves is due to a fungus, *Capnodium quercinum*.

NAMES OF PLANTS.—*Boris*.—*Helxine Solierolii*, a Corsican plant.—*M. J. C.*—A form of the Scotch Elm or Wych Elm (*Ulmus montana*), probably the variety *purpurea*.—*E. H.*—1, *Sedum spectabile*; 2, *Veronica Teucrium* var. *dubia*; 3, *Aster Novæ-Angliæ* var. *pulchellus*; 4, *Viola cornuta*; 5, *Helianthus multiflorus* fl. pleno; 6, *H. rigidus* variety; 7, *Erigeron multiradiatus*.—*D. F. G., Ivybridge*.—*Sollya heterophylla*.—*Lady Muriel Close*.—1, *Cratægus coccinea*; 2, *Cotoneaster humifusa*.—*G. Y., East Yorks.*—1, probably *Chlorophytum elatum*; 2, *Aspidium angulare acutum*; 3, *Escallonia macrantha*; 4, *Pyracantha crenulata*; 5, *Acer palmatum*; 6, *Prunus pissardi* (*P. cerasifera* var. *atropurpurea*).—*Bolney*.—1, *Rhus Toxicodendron* (Poison Ivy); 2, *Verbascum Blattaria* album; 3, *Ptelea trifoliata* (Hop Tree); 4, *Veronica angustifolia*.—*F. W. W.*—1, *Leucophytum Brownii*; 2, *Lantana salviifolia*; 3, *Begonia maculata*; 4, probably *Eriobotrya japonica* (Loquat); 5, probably a *Crinum* species; 6, *Begonia* species—propagated by cuttings, store in cool, dry house; 7, *Cissus discolor*.

NAMES OF FRUIT.—*R. A.*—Pear—*Olivier des Serres*; Apples—1, *Bowhill Pippin*; 2, *Dutch Mignonne*.—*Farmer*.—1, *Striped Beaufin*; 2, *Gold Medal*.—*Dunkerry*.—The Pear is true to name, and is *Louise Bonne* of Jersey. —*W. H., East Sheen*.—1, *Beauty of Kent*; 2, *Cellini*; 3, *King of the Pippins*. Pear decayed. —*G. B. E. R., Shrewsbury*.—Apple *Withington Filbasket*.—*E. W., Surrey*.—1, *King of the Pippins*; 2, *New Hawthornden*; 3, *Wellington*; 4, *Yellow Ingestre*; 5, *Wealthy*; 6, *Blenheim Orange*.—*E. H. C. T.*—1, *Bismarck*; 2, *Brown Beurré*; 3, *Beurré d'Anjou*. —*W. F. M. C.*—The Pear is *Marie Louise*; the other should be root-pruned. —*G. Massie*.—1, *Beurré d'Amanlis*; 2, *General Todleben*.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

THE ordinary fortnightly meeting of the society held on the 26th inst., if not characterised by the fulness of some of the gatherings immediately preceding it, was not without interest, variety or beauty. For example, fruit exhibits were of a seasonable nature, their high excellence but a further tribute to British horticultural skill, to which we have before referred. The Bunyard collection of Pears—some seventy or eighty sorts—was one, in some respects, of the finest ever staged; while the collections of fruit from Welwyn and Hampton afforded proof of the attention paid by cultivators to this department of horticulture generally. In other directions the group of rock and other shrubs from Colchester was of much merit. The early *Chrysanthemums*, too, joined forces with the last of the *Dahlias*, and afforded evidence of the waning days of the year. Orchids were not largely shown, and hardy plants were practically nil. Few novelties were on view.

FRUIT AND VEGETABLE COMMITTEE.

Present: J. Cheal, Esq. (chairman), and Messrs. W. J. Jefferies, W. Bates, Edwin Beckett, J. Udale, H. J. Wright, A. Bullock, G. Reynolds, Owen Thomas, E. A. Bunyard, J. Jaques, J. Harrison, W. S. Rivers and W. Poupard.

Without doubt the collection of Pears from Messrs. George Bunyard and Co., Maidstone, was the most interesting and instructive exhibit of the meeting, some seventy or so varieties being staged. The collection was arranged on an exceptional plan, groupings being made of those raised in France, Belgium and England, the order mentioned being also indicative of the countries providing the greater wealth of these fruits. France obviously has been ever to the front in these matters, and some of the best kinds have been raised there. In addition, the date of introduction and, in most instances, the raiser's name were given; hence in a dual sense the objects of an exhibition such as this were well served. From the French set we selected *Beurré Alexandre Lucas* (1871), *Marie Benoist* (1863), *Doyenné du Comice* (one of the finest Pears, 1849), *Duchesse d'Angoulême* (1809), *Fondante de Thiriot* (1858), *Duchesse de Bordeaux* (1850, one of the best late Pears), *Roos Nolt* (of brilliant colour and recent introduction), *Beurré Superfin* (1846), and *Catillac* (one of the best stewing Pears, 1665); from Belgium, *Durondeau* (of fine colour and first class for dessert, 1811), *Glou Morceau* (one of the best late varieties for dessert, 1759), *Emile d'Heyst* (1847, a good late sort), *Beurré Diel* (a well-known Pear, 1810), and *Josephine de Malines* (good late, 1830); in the English set, *Pitmaston Duchess* (1865), *Conference*, *Uvedale's St. Germain* (1698), *Glastonbury* (origin unknown), and *Knight's Monarch* (1838), as those that appealed most. The dates in parentheses indicate the year of introduction.

An exhibit of vegetable produce to demonstrate possibilities in times of need came from Messrs. Sutton and Sons, Reading. Sown in the open at the beginning of August and given ordinary attention and cultivation, it afforded evidence of a high order of utility that could not be gainsaid. In an extensive collection we noted Carrots of the Short and Long Horn sections, Onions, Beet, Potato Warwick Castle, Turnips, Peas, Kohi Rabi, Beans, Cos and Cabbage Lettuce, Spinach, various saladings and much besides. We have never before seen such a remarkable collection of garden produce grown in so short a period and in such high excellence. Needless to say, the collection was most attractively staged, and in this connection was a source of inspiration and instruction to many.

Mr. J. A. Nix, Tilgate, Crawley, exhibited an excellent table of fruit, Apples being the chief, though Pears and Grapes were abundant and of high quality. Of the latter, Mrs. Pince, Lady Hastings, Gros Maroc (of fine finish) and Appley Towers were all good; while *Muscot* of Alexandria was above the average. Pears *Doyenné du Comice*, *Marie Louise*, *Durondeau*, *Beurré Bosc* and *Brockworth Park* were all excellent. Of Apples, *Nancy Jackson*, *Bramley's Seedling*, *Warner's King*, *Gascoyne's Scarlet*, *Newton Wonder*, *The Queen*, *Coronation*, *Peasgood's Nonsuch*, *Lord Derby*, *Hollandbury* and *Jubilee* were among the best. A Hogg Memorial silver-gilt medal was awarded.

C. A. Cain, Esq., Welwyn, Herts, showed a superb table of Apples and Pears, for which a silver-gilt Hogg Memorial medal was awarded. The fruits were of high quality throughout, though we select *Pears Pitmaston Duchess*, *Uvedale's St. Germain*, *Emile d'Heyst*, *Conference*, *Durondeau*, *Marie Louise* de Uccle and *St. Luke*; and Apples *Warner's King*, *Rev. W. Wilks*, *Peasgood's Nonsuch*, *Emperor Alexander*, *Bramley's Seedling*, *Charles Ross*, *Lord Derby*, *Lane's Prince Albert* and *Newton Wonder* as the best in a very fine lot.

Mr. Will Tayler, Hampton, showed excellent Pears, Apples and Grapes in pots, the former including *Beurré Diel*, *Beurré Clairgean*, *Doyenné du Comice*, *Josephine de Malines*, *Durondeau* and *Beurré Hardy*; while of Apples, *Jubilee* (fine yellow colour), *Bismarck*, *Allington Pippin*, *Cox's Pomona*, *Lane's Prince Albert*, *Annie Elizabeth*, *Lord Derby*, *Cox's Orange Pippin*, *Newton Wonder*, *Charles Ross*, *King of the Pippins*, *Worcester Pearmain* and *Hollandbury* were some of the best. This was a collection of all-round excellence, for which a silver-gilt Knightian medal was awarded.

ORCHID COMMITTEE.

Present: J. Gurney Fowler, Esq. (chairman), Sir Harry J. Velth, Sir Jeremiah Colman, and Messrs. Stuart Low, F. J. Hanbury, Pantia Ralli, A. A. McBean, W. Cobb, J. Charlesworth, J. Cypher, H. G. Alexander, Arthur Dye, C. H. Curtis, S. W. Flory, W. Bolton and Gurney Wilson.

THE GARDEN.

No. 2294.—VOL. LXXIX.

NOVEMBER 6, 1915.

NOTES OF THE WEEK.

National Chrysanthemum Society's Lectures Postponed.—The lectures which were to have been delivered before the members of this society on November 4 and December 8 by Dr. Keeble and Mr. P. A. Cragg respectively have been postponed in consequence of the new lighting regulations in London.

Pinus with Juvenile and Mature Foliage.—At a recent meeting of the scientific committee of the Royal Horticultural Society, Messrs. Cheal exhibited a plant of *Pinus Pinea* about 3 feet in height bearing both juvenile and mature foliage, the juvenile form being present on shoots at the base and near the top of the tree. Sir Daniel Morris had recently noticed a similar thing on large trees of this species near Bournemouth, and it not uncommonly produces them when cut back.

Antirrhinums Eaten by Animals.—I was greatly interested in the paragraph in "Notes of the Week" of last week's issue *re* "Antirrhinum Eaten by Animals," having suffered a very heavy loss last winter of a frame of seedling Antirrhinums by field mice. They were nibbled quite close to the boxes at our sports ground, Chingford. The shoots, from 1½ inches to 2 inches long, were buried in a corner of the frame, presumably as a winter store. I have also lost complete boxes of *Lobelia* from the same source, while Stocks and Asters remained untouched.—T. BAKER, *Hon. Secretary, Waterlow and Sons', Limited, Amateur Gardeners' Association.*

Rose Iona Herdman.—Those who are looking for a Rose for decoration in a cut state, either for vases or the dinner table, should procure this seedling, sent out by Messrs. S. McGredy and Son in 1914. I know of no variety that embraces so pleasing a tint of colour—a pure clear orange flame with a flush of ochre in the young stage of development, which adds a charm to the colour as a whole. The blooms, like those of many other charming varieties for decoration, are none too full, even when fully open; but if caught in the bud and three parts open state, then one has a Rose unsurpassed in form, colour and effectiveness.—E. M.

A Beautiful Guernsey Lily.—On page 545 the Rev. Joseph Jacob asks, "Are Guernsey Lilies coming into favour?" and to this we reply, "Unquestionably they are." Nearly all Daffodil-growers, besides others, are now taking up Nerines. Below we illustrate *Rotherside*, well known as one of the most beautiful Nerines in cultivation, and introduced by Messrs. Herbert Chapman, Limited, Rye. The flowers of this exquisite novelty are a rich orange salmon, and in bright sunlight there is a delightful scintillation on the petals which reminds one of the effect of sun rays through a stained glass window. It is a strong

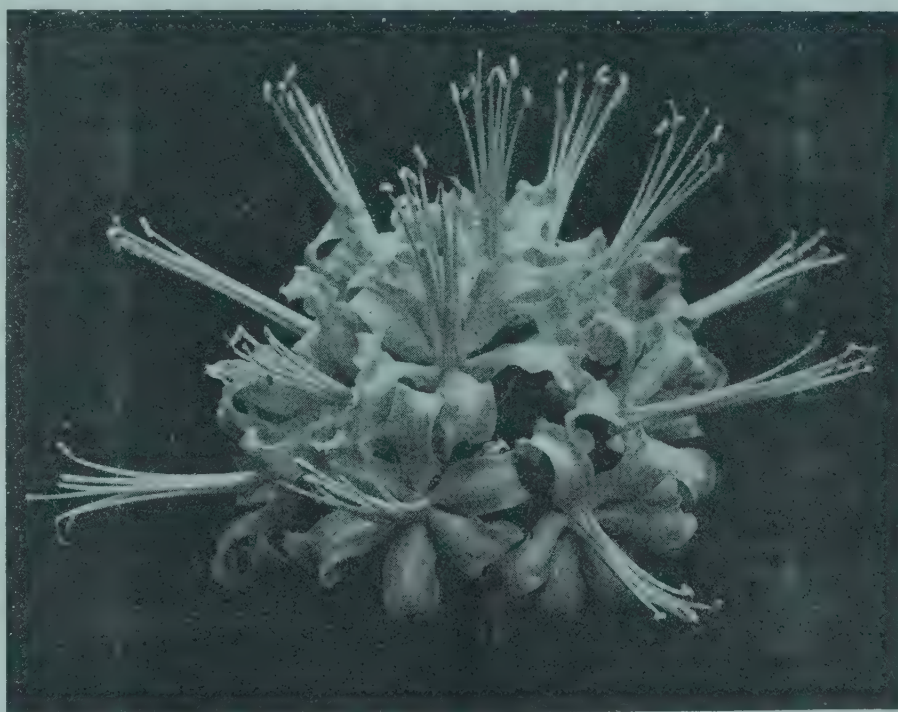
other St. John's Worts, it thrives best in a fibrous loamy soil.

Plum Coe's Violet White Gage.—This is a desirable companion to Coe's Golden Gage, and might easily be put down as a sport from Coe's Golden Gage, as it possesses all the characteristics of that variety except in colour, which is shaded purple. In flavour it is similar, yet not quite equal. In ripening and keeping it is a facsimile, and in the manner of cropping and adaptability to various sites it is a desirable variety to cultivate by those who require a coloured, high quality dessert Plum in October.

Lithospermum prostratum.

Among the plants which so frequently favour us with late bloom must be placed *Lithospermum prostratum*, one of the really invaluable rock plants, and also of supreme value on a wall. To see a sheet of its dark green leaves spangled freely with its lovely blue flowers is to witness a sight to gladden the heart of the flower-lover. It matters little whether the plant is of the typical *L. prostratum* or of that lovely variety *Heavenly Blue*. Either will afford the keenest delight in October in a good season. It is of easy culture, as a rule, but sometimes old plants look shabby after a fickle winter. In this case they may be cut back, and will generally recuperate in a short period.

Coronilla glauca.—Of the various Coronillas in cultivation, this is undoubtedly the best. At the present time it is again furnishing a mass of



THE NEW NERINE ROTHERSIDE. FLOWERS RICH ORANGE SALMON.

grower, producing dense heads of flowers. On an average there are as many as thirteen flowers of unusual size and substance to an inflorescence, each flower having long, protruding anthers and delicately twisted petals.

A Little-Known St. John's Wort.—*Hypericum Ascyron* has large, rich yellow flowers 2½ inches across. A native of North America and North Asia, it is a semi-herbaceous species, the stems dying down annually to the ground. These are erect, some 30 inches to 3½ feet high, terminating in a corymb of showy flowers at their best in September. Seeds are freely produced, this forming a ready means of increase. Like

its bright yellow and fragrant blooms, which are very effective at this period of the year. A few isolated specimens in close proximity to the rock garden, or in the shrub border, would be sure of a welcome. It grows from 2 feet to 4 feet high, and the foliage is glaucous, as indicated by the specific name. Propagation is effected by division in the spring, and cuttings of young wood will root at almost any time if inserted in sandy soil and placed in a cold frame. Seed is occasionally produced, and when procurable it may be sown directly it is ripe. The Pea-shaped flowers of *C. glauca* are very numerous, and the same remark applies to *C. valentina*, which is also in flower.—B.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Plants for the Water-side.—The charming illustration in your issue of October 30, page 533, shows a pleasing display obtained from good masses of *Iris sibirica* and wild Roses when grown along the water's edge; but few readers may be aware of the beautiful effect obtained by growing *Lychnis Flos-cuculi*, the Ragged Robin of our meadows, among Siberian Irises. Both delight in such a position, and the loose terminal panicles of rosy red flowers of the *Lychnis* harmonise with the blue of the Irises.—P. G. F.

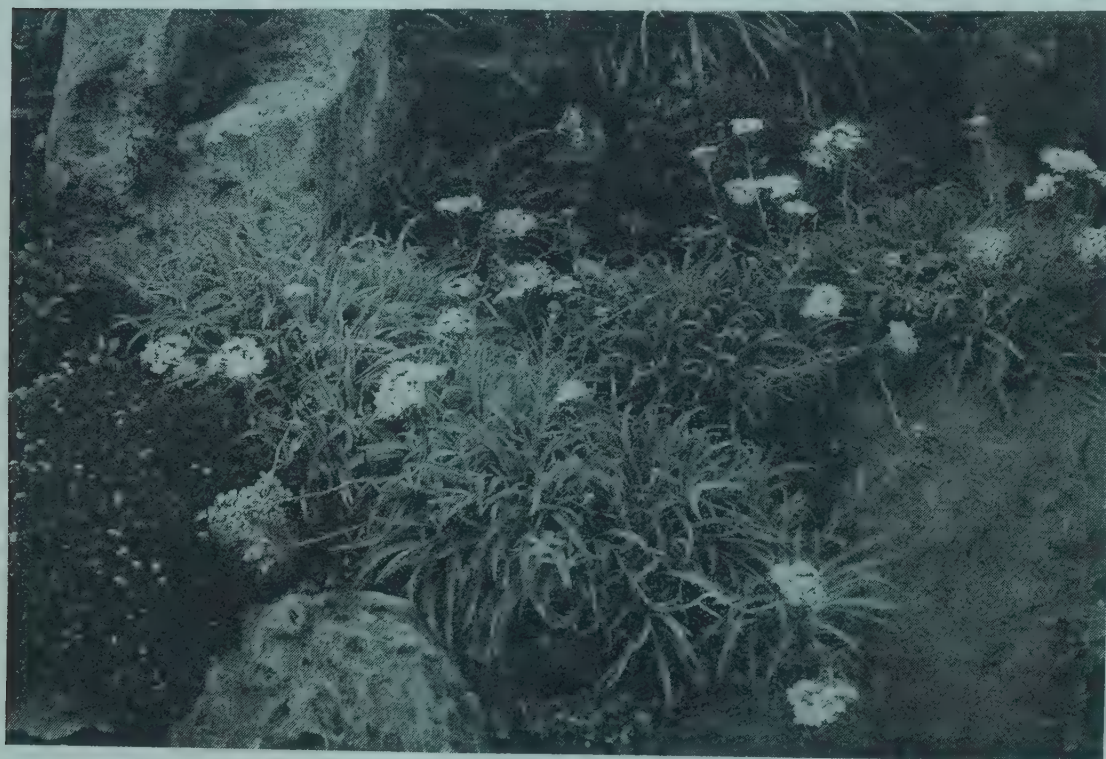
October - Flowering Rock Plants.—I was interested in the list of alpine plants given by Mr. E. C. Howell on October 16, and perhaps the following list of plants which were in flower at Castleford, Chepstow, on October 17 may be helpful to some readers of THE GARDEN who are taking

Rose Number dated October 23, page 523: *Queen of Fragrance* (Messrs. W. Paul and Son), the newer *Colcestria* (Messrs. B. R. Cant and Sons), Mrs. G. Norwood (Mr. Elisha J. Hicks), Edward Bohane (Messrs. S. McGredy and Son), Juliet, Mevrow Dora van Tets (Messrs. M. Leenders and Co.), Mrs. Frederick W. Vanderbilt (Messrs. S. McGredy and Son), Mrs. Frank Bray (Messrs. Alex. Dickson and Sons), and Melody (Messrs. Alex. Dickson and Sons), not forgetting Edward Mawley, quite one of the most fragrant.—E. M.

The Japanese Windflowers.—I have been interested in the recent notes on these flowers. In my border I have big clumps, four years established, of the varieties *Whirlwind* and *Queen Charlotte*, also of the common white, alba, and the variety *rosea*. *Whirlwind* and *Queen Charlotte* are certainly very strong, the flowers being well over 4 feet above the ground, but the blooms certainly do not compare with the others for size and effectiveness. *Whirlwind* is very free, but the blooms are small and far less impressive

It is now quite 27 feet high, and the trunk measures 2 feet 1 inch in circumference at 3 feet from the ground, and at the present time looks quite happy. I may add it is sheltered somewhat from the south and south-west winds, although exposed to the north and east. *E. globulus* is also planted out and grows to fine trees, but the wind serves that variety rather badly and causes a great amount of trouble in staking and tying. Other varieties we have are *E. resinifera*, *E. Camboges*, *E. amygdalina*, *E. coccifera*, *E. robusta* and *E. ficifolia*, all of which we have raised from seed. Most of these have been planted out for from one to three years. Although, in some cases, they have not made much growth, they have proved their hardiness in this favoured locality, and I think if they are given better positions than some of them are in at present they will grow away into good specimens.—R. H. LEGG, *Melksham House Gardens, Melksham*.

Changing the Botanical Names of Plants.—If your correspondent "H. P.," page 516, issue October 23, would acquaint himself with the rules adopted by the International Botanical Congress at Vienna, he would see, I think, that there is no contradiction in saying that the correct name of any plant is that which was first given to it, and that in certain circumstances botanists are justified in changing the name. For instance, it is not difficult to imagine cases where fresh discoveries show that a plant formerly regarded as an outlying member of one genus is in reality typical of a whole group of plants, so different from all others as to merit a generic name. Rules have been agreed upon which govern the changes involved, but the changes themselves are none the less necessary. Again, has your correspondent reflected on the consequences of the general adoption of his wish that names considered by some to be "totally inappropriate" should be dropped? I do not, of course, mean that I should say that *Magnolia grandiflora* has to me a foetid smell; but I do know that, whereas I personally rather enjoy the scent of *Fritillaria imperialis*, there are many who dislike it. If, therefore, I had been the fortunate discoverer of this fine plant, I might easily have recorded in its name the scent which to me is pleasant. Others would think it "totally inappropriate"; and who is to decide questions of taste and smell? The only logical course seems to be to admit the claims of priority, even at the expense of having occasionally to tolerate a seemingly inappropriate name. With Mr. Bean's opinion of the American and Continental hair-splitters I am personally entirely in agreement, as I think I have shown in dealing with the particular genus of plants with which I am best acquainted; but at the same time I am equally conscious of the difficulties that result from including a large number of forms under one specific name. On the whole, however, it seems sounder to define a species as liable to variation within certain limits than to take one specimen, describe it minutely with accurate measurements, and then insist that every variation from that type is worthy of specific rank. The latter is, of course, by far the easier and, at the same time, the less intelligent plan. The minute description of one specimen is a mere mechanical exercise for the trained botanist, but to know the limits within which seedlings of any particular plant may vary implies a far more extensive and intimate knowledge of the plants than most professional botanists have of those which they describe.—W. R. DYKES.



ACHILLEA KELLNERI, A LATE-FLOWERING ALPINE WITH WHITE FLOWERS AND SILVERY GREY FOLIAGE.

up the fascinating work of rock gardening: *Abelia chinensis* (syn. *A. rupestris*), *Achillea Kellneri*, *Buphthalmum salicifolium*, *Coronilla glauca*, *Campanula muralis*, *C. garganica hirsuta alba*, *C. Stansfieldii*, *Convolvulus mauritanicus*, *Caryopteris Mastacanthus*, *Cyclamen neapolitanum*, *Chenostoma hispida*, *Erigeron mucronatus*, *E. Quakeress*, *Erica vagans*, *E. v. alba*, *Erodium amœnum*, *Gaura Lindheimeri*, *Geranium prostratum*, *G. sanguineum*, *Hypericum fragilis*, *Oenothera pumila*, *O. riparia*, *O. mexicana*, *Origanum Tournfortii*, *Primula Poissonii*, *Plumbago Larpenæ*, *Parochetus communis*, *Polygonum vacciniifolium*, *P. Brunonis*, *Salvia patens alba*, *Saxifraga Fortunei*, *Silene tommasiniana*, *Satureia montana*, *Sphæralcea munroana* and *Zauschneria californica*.—T. W. B.

Fragrant Roses.—The Rev. David R. Williamson should include without delay the following varieties for their fragrance, which are, with two exceptions, a long way ahead of any he names in the

than the common white. *Queen Charlotte* is a washy colour, and the crop is never abundant. On the other hand, *rosea* simply smothers itself with bloom of much greater size and richer colouring. Moreover, its semi-double character makes the flowers much more lasting, so that I have decided to dispense with *Queen Charlotte* and increase my stock of *rosea*.—T. A. W.

Eucalypts for English Gardens.—In your issue of October 9, page 496, a very interesting article appeared on "Eucalypts for English Gardens," by Mr. E. A. Bowles, in which he gives his experience in the growing and culture of many varieties; and, as he rightly says, they give a great amount of interest and pleasure and look so beautiful in a garden among and backed up by other trees in sheltered positions. In the gardens of The Cottage, Porlock Weir, West Somerset, a residence of Mr. G. W. W. Blathwayt, there is a fine specimen of *E. beauchampiana*, which was obtained from Treseder of Truro and planted out of a 4-inch pot in November, 1908.



LILIUM SULPHUREUM GROWN BY A READER IN BRITISH COLUMBIA.

Liliums and Gladiolus tristis.—I enclose a photograph of *Lilium sulphureum* showing two spikes, the taller being $7\frac{1}{2}$ feet and carrying nineteen perfect buds and flowers. Last season the same larger inflorescence bore fifteen flowers. These bulbs are growing in the open ground, and receive no water other than that which comes from the clouds. A more majestic Lily would be hard to find, but I cannot induce it to produce seed. *L. Sargentiae* (which appears to me to be so close to *L. sulphureum* as to be merely a form of the same) seems to have no objection to bearing fat (and full) seed capsules, while *L. nepalense* has set a large number also. Can any reader furnish a description of what is to-day being grown in English gardens under the name of *Gladiolus tristis*? What I grow here has creamy, greenish-tinted flowers, odourless during the day, but powerfully scented at night, the foliage resembling that of *Iris tuberosa*, but darker green and hard, the flower-spike emerging therefrom at about 12 inches from the ground. It flowers with the latest Daffodils. A contemporary in the United States gives *G. tristis* as having tan-coloured, drooping flowers. — GILBERT ERREY, *Victoria, British Columbia*. [The photograph of *Lilium sulphureum* is abundant evidence that the bulbs are growing under genial conditions. It matters but little that *L. sulphureum* does not mature seeds freely, as bulbils are freely produced in the axils of the leaves. With us *L. Sargentiae* flowers at least a month earlier than *L. sulphureum*. In colour it is creamy white, whereas *L. sulphureum* is a decided yellow, with a much longer tube and more substance in the flower, also taller in growth. At present, except in the sunny South and West, where *L. sulphureum* does well, *L. Sargentiae* promises to be a better border Lily for British gardens. Our correspondent's description and photograph fit *Gladiolus tristis* as grown in this country. Colour descriptions of different writers are

frequently variable, and this may be the cause of the discrepancy that is pointed out.—ED.]

Cottage Garden Societies and Vegetable Shows.—I cannot agree with Mr. James Smith's letter in your issue of October 16, page 505, wherein he expresses such a poor opinion of exhibitors on the score that they are not cropping their ground to the best advantage. I should like to say that my society has about forty members, all hard-working men, and I say the more the men show, the more the garden must produce. Moreover, the vegetables are of superior quality and something to be proud of when grown. We started our usual monthly meetings last October and paid 1d. a point on all produce that gained it. We had a box on the table for those who chose to contribute; the lowest collection was 3s., the highest 8s. 7d. This money was sent to the British Red Cross and Belgian Relief Funds. At the annual show on August 4 we made every effort, paid the usual prize money and sent the balance, £12, to the Belgian Relief Fund, and 6cwt. of the vegetables were given by the members to the Fleet. We have started the same methods again this season, and in addition we have decided to send a box of vegetables each month to the Fleet. The members with families have enough vegetables for their own needs and to spare, and if Mr. Smith and his society, with their intensive culture, can make it clear that theirs is a better method than ours, I will ask his humble apology. — G. ANDREWS (*Chairman*), *Tilmanstone Cottage Garden Society*.

Late - Flowering Alpines.—I was much interested in the list of these given by Mr. E. Bowell of Cheltenham, but was rather surprised by his omission of a few other late flowerers of outstanding merit. Take, for instance, *Verbena chamædrifolia*, of which, fortunately, you had a capital illustration and valuable note in the same issue, thus more than atoning for its omission. It is a really good plant for summer and autumn flowering. Every growth bears a head of glowing scarlet flowers, and, being a trailer, individual plants will easily cover a circumference of 2 feet from the centre. *Wahlenbergia vinæflora* is likewise admirable for continuous flowering, and, very graceful, too, the flowers being borne on thin wiry stems about a foot high. Another lovely trailing plant in full flower with us is *Parochetus communis*. This bears a Pea-shaped blossom of a pleasing blue shade, while the foliage is of Shamrock type and prettily marked with brown blotches. Yet another subject that always blooms right on until it is too cold for the buds to unfold is *Oxalis rosea*. Though this plant has been flowering for many weeks past, it is still a mass of spikes; but, alas! many of these can never open owing to the fast declining sun power. *Erigeron mucronatus* has also still a nice show of flowers, and some seedling plants of *Tunica rosea* are making a fine display, though the old plants have passed their best. The treatment probably accounts for the late blossoming of the seedlings. They were sown twelve months last June or July, wintered

in a cold frame, and planted out in the spring. —C. TURNER, *Highgate*.

Aster Amellus King George.—In mentioning three outstanding *Amellus* Asters, Mr. F. J. Townend overlooks the new *King George*, which easily stands head and shoulders above all others in this section. A magnificent grower of medium height, it bears huge trusses of mid-blue flowers of wonderful size. This variety gained an award of merit last year from the Royal Horticultural Society.—T. A. W.

Antirrhinums as Bedding Plants.—Several years since in a Hertfordshire garden two beds were planted with Intermediate White *Antirrhinum*. The seed was sown in February, the young plants pricked out into a cold frame when large enough to handle, and planted out at the end of May. These beds were always admired, and although situated near beds containing a variety of more gorgeous subjects, we found that visitors made more enquiries respecting the cultivation of the *Antirrhinums* than of any other plant. Some admire these plants, but hesitate to use them in beds, fearing that they will not give a succession of flowers. We find that, providing a moderately rich soil is secured and the seed-vessels removed regularly, a display is maintained continuously throughout the summer months. As border plants, few subjects prove more useful. Many of the varieties are excellent for introducing into various colour schemes. The flowers are also useful for cutting.—C. RUSE.

FORTHCOMING EVENT.

November 11 and 12.—Chrysanthemum Show. First day, 12 a.m. to 5 p.m.; second day, 10 a.m. to 5 p.m. Royal Horticultural Hall, Vincent Square, Westminster, S.W.



ERIGERON MUCRONATUS, SHELTERED BY ROCKS, STILL PRODUCES ITS DAISY-LIKE FLOWERS.

MORE ABOUT THE ROSE GARDEN OF EUROPE.

[BY THE EDITOR, HERBERT COWLEY.]

IT came as a pleasant surprise, and at the same time a source of gratification, that my impressions of Bulgaria, published in our Rose Number, dated October 23, should have created such widespread interest. I have been asked by many readers for what reason the notes were signed "C. Q.," and in reply can only say that I employed the pseudonym under which I have for years contributed to these pages.

Fields of Fragrant Roses.—Early next morning we were again in the Rose fields. Every opened and half-opened flower is gathered when the early morning dew is on them. There were Roses everywhere as far as the eye could see, and the air was laden with the fragrance of the Damask Rose. The scene was almost equal to that at Kazanlik—the centre of the attar industry. A bevy of plum-eyed maidens, in picturesque costumes, left their baskets of Roses and gathered round my friends from Ireland. Like the older men and women, they were affable and good-natured, and at all times only too ready to pose before the camera. The peasant folk, on learning that we were Britishers, would come forward and

Saxifraga rotundifolia, *Rhus Cotinus*, *Lilium Martagon*, *Pulmonaria rubra*, *Campanula velutina* and *Pinus Peuke* (the Macedonian Pine). At higher elevations we found *Dianthus microlepis* and its white variety, *Gentiana verna*, the violet-flowered *Primula deorum*, *Soldanella montana* and *S. pusilla*, Junipers, Crocuses and Orchids in variety. Annual Larkspurs and Love-in-a-Mist abound in the lowland fields. It was while crossing the Shipka Pass that we gazed upon one of the most glorious floral sights that we could ever hope to see. Under the partial shade of Junipers and other low-growing trees were masses of that lovely *Gesnerad*, *Haberlea rhodopensis*. Its flowers were so abundant that its foliage was almost hidden from view. My late and esteemed friend C. F. Ball of Glasnevin delighted the company by discovering among rocky boulders a pure white form of this beautiful plant.

A few eagles were hovering at a great height over precipitous rocks and inaccessible places along the Balkan Range; and we learned from two Bulgarian shepherd boys that their sheepfolds were occasionally disturbed by nocturnal visits from bears.

A few years ago the Bulgarian peasants could not speak too highly of the English. They knew that the independence of their country was the work of English hands and English hearts.

Now a bewildering change has overtaken the people of Bulgaria, and they are driven by a German monarch into war with the very nations who gave them freedom from the cruel oppression of the Turks. For a wild pledge of empire the peasants have betrayed their traditions.

BORDER CARNATIONS.

IT would be hard to picture an English garden which had no spot therein devoted to the culture of the Carnation. By the merit of many virtues this plant has held the esteem of horticulturists from the time when flowers first began their refining influence on mankind till the present day. Nor has it ever suffered eclipse of popularity through spells of neglect, as have so many of the so-called florists' flowers during the last hundred years. And now, in these convulsed, tumultuous times, when many minds dare hardly think of gardens and the sweets of leisure, there is but little sign of any falling off in the demand for good Carnations. I have claimed the merit of many attractive features in the cultivation of these flowers, and when one scans the varied uses to which they can be put; the interest to be extracted from the process of raising, flowering and propagating them; the prevailing good nature and hardihood of the plants and the small amount of trouble involved in bringing them to a successful flowering stage; and the extraordinary range of colour and beautiful shape of the flowers themselves, it is small wonder that the Rose only can compete with them in popular acclaim.

But to get to matters practical, for these notes are, above all, to be a reliable and practical help to Carnation culture for all readers who desire such, and I shall be glad at all times to answer queries and give what help I can to any who care to ask for it.

As regards culture outdoors, there is not a great deal to do at the moment, provided the work is up to date. Beds should have been prepared and planted before now; but if this



BULGARIAN GIRLS GATHERING ROSES NEAR SHIPKA.

Our Arrival at Stara-Zagora.—The fame of our small party of plant-collectors, who had been so favourably received by King Ferdinand, preceded us, and on our arrival at Stara-Zagora we were met by the Bishop and other dignitaries of that town and driven off in phaetons drawn by ill-fed ponies. Cleanliness and godliness are not inseparably associated by the priests of Bulgaria, an article in the popular creed being indeed the sinfulness of washing and hair cutting, conditions which detract somewhat from the heroic ideals with which the bearded priests and monks of Bulgaria are invested in the popular mind. The Bulgarians appear to have little idea of road making, even in the towns, and our queer-looking procession of carriages rattled through the streets until we reached the Bishop's house. Here we were welcomed in accordance with a curious and simple Bulgarian custom known as "drinkee."

Glasses of water and small dishes of over-sweetened jam, made from the fruits of the Cornelian Cherry and petals of the Madonna Lily, are brought in, and each visitor helps himself to a spoonful of jam and as much water as he desires.

vigorously shake hands with us. They would make all manner of utterances in a Slavonic tongue that was strange to us, and then express surprise among themselves that we could not understand them. They usually enquired, so I am told, after the health of one's family, not forgetting uncles, aunts, cousins and far distant relations.

Crossing the Shipka Pass.—High up on the Shipka Pass a general view of the valley of Roses of Kazanlik is obtained, and in the foreground the Russian monastery at Shipka, with its gilded cupolas, stands out in bold relief. This magnificent building was erected by the Russians to commemorate the defeat of the Turks at Shipka Pass. The Bulgarians allowed the Russians to build this noble edifice, and then forbade the inhabitants to use it. We attended Divine Service here, and with the exception of our small party, the priest and a woman caretaker were the only other persons present.

The flora of this district proved most interesting, and among the plants we came across were the Fishbone Thistle (*Cnicus Casabonae*), Honey Balm (*Melittis Melissophyllum*, *Aquilegia lutea*, *Geum coccineum*, *Geranium macrorrhizum*,

has not been done, no time should be lost. Both seedlings and layers from old plants are much stronger and better fitted to stand winter strains by being planted early enough to form strong new roots before frost and cold rains chill the soil below a temperature of 45°. If any of the layers are tall and inclined to "legginess," they must have some support from the buffeting of wind. Seedlings generally are stouter and dwarfer, and can look after themselves in the winter, unless, indeed, the birds show a particular interest in one's stock and make frequent banquets off them. In that case, an occasional dusting with dry and weather-exposed soot will make the leaves less palatable, while at the same time it tends to check soil vermin and also acts as a valuable manure.

If only a small collection is grown, an effectual protection against avian ravages can be secured by stretching cotton over the plants. Layers in pots for culture under glass will winter well in cold frames, and will root very strongly if the pots are plunged in ashes. This keeps the soil equably moist, and secure against extremes of temperature. Abundant light and ventilation must be given at all times, even in hard weather. Carnations have no bronchial tubes and no terrors for low readings of the thermometer, and it cannot be too often emphasised that coddling of hardy plants is mere idle mischief. Water should be given with care and temperance, as a wet, spongy rooting medium is quite against the natural desires of the Carnation, especially during the months of slow growth.

It is not too early to think of laying in a stock of fibrous loam for potting purposes, as this must be at least partially rotted when used. It is, however, a great boon to growers that Mr. James Douglas of Great Bookham is now in a position to supply ready mixed potting soil to customers at a very moderate charge, for potting soil from Edenside is a vastly different product from the all-utility mixtures sold by local dealers. My next article will deal with collections of border Carnations, both as to novelties and the older, proved sorts.

J. L. GIBSON.

NEW AND RARE PLANTS.

FIRST-CLASS CERTIFICATES.

Cattleya Luegeæ Fowler's Variety (*C. aurea* × *C. Enid*).—A remarkably handsome hybrid with broad, somewhat undulated, crescent-outlined sepals of a rosy red, and petals of the same rich colouring. The elaborated lip has a heavily crested or plumose margin, the whole of crimson purple hue, and golden, freely reticulated ground near the throat. From Mr. J. Gurney Fowler, Pembury, Kent. **Cattleya labiata alba** Princess of Wales, which had already received a first-class certificate, was shown beside the above.

Scelopendrium vulgare crispum speciosum.—A magnificent example, having a spread of fronds 3 feet or more across, and with fronds nearly 2½ feet in length, was shown of this noble variety, in all probability the handsomest of its class. The handsome, glossy fronds, with pronouncedly goffered or ruffled margins, render it as beautiful as it is imposing. From Mr. W. B. Cranfield, Enfield Chase.

AWARDS OF MERIT.

Cattleya Moira rubra (*C. Fabia* × *C. Martinii*).—The sepals and petals are rich reddish purple, the lip of rich purple hue. It is one of the richest coloured we have seen. From Messrs. Hassall and Co., Southgate, N.

Chrysanthemum Charlotte E. Soyer.—A large exhibition variety of the Japanese section, and coloured yellow. Shown by Mr. Martin S. Silsbury, Shanklin, Isle of Wight.

Chrysanthemum Bertha Fairs.—A big exhibition single with two or three rows of florets. It is of terra-cotta shade and very showy.

Chrysanthemum Market Bronze.—A decorative sort coloured gold and bronze, and with many of the good attributes of a market flower, *i.e.*, short peduncle or neck, and firm, crisp florets indicative of good keeping qualities. These were from Mr. Norman Davis, Framfield, Sussex.

Chrysanthemum General Smith-Dorrien.—An exhibition variety of maroon crimson, and gold reverse.

Carnation Aviator.—Not quite a novelty, though, as shown, one of the richest scarlets we have seen. From Messrs. W. Wells, Limited, Merstham.

The whole of the foregoing novelties were before the Royal Horticultural Society on October 26, when the awards were made.

ALLIUM KANSUENSE.

This species has received very favourable mention lately in some deeply interesting accounts of a search for new plants. I am not surprised at the admiration it has excited, as it is a really charming little bulb, excellent for the rock garden. It was offered in catalogues a good many years ago, and I had the pleasure of growing it for some little time. I believe, however, that I lost it during a prolonged winter of almost Arctic severity which occurred some twenty or so years ago. It is a dainty little plant, with steel blue flowers, and is, or was with me at least, about 6 inches high. I am not sure that it is in the market now, but it probably will be again soon, and will be worth securing by those who like bulbs of this size on their rock gardens.

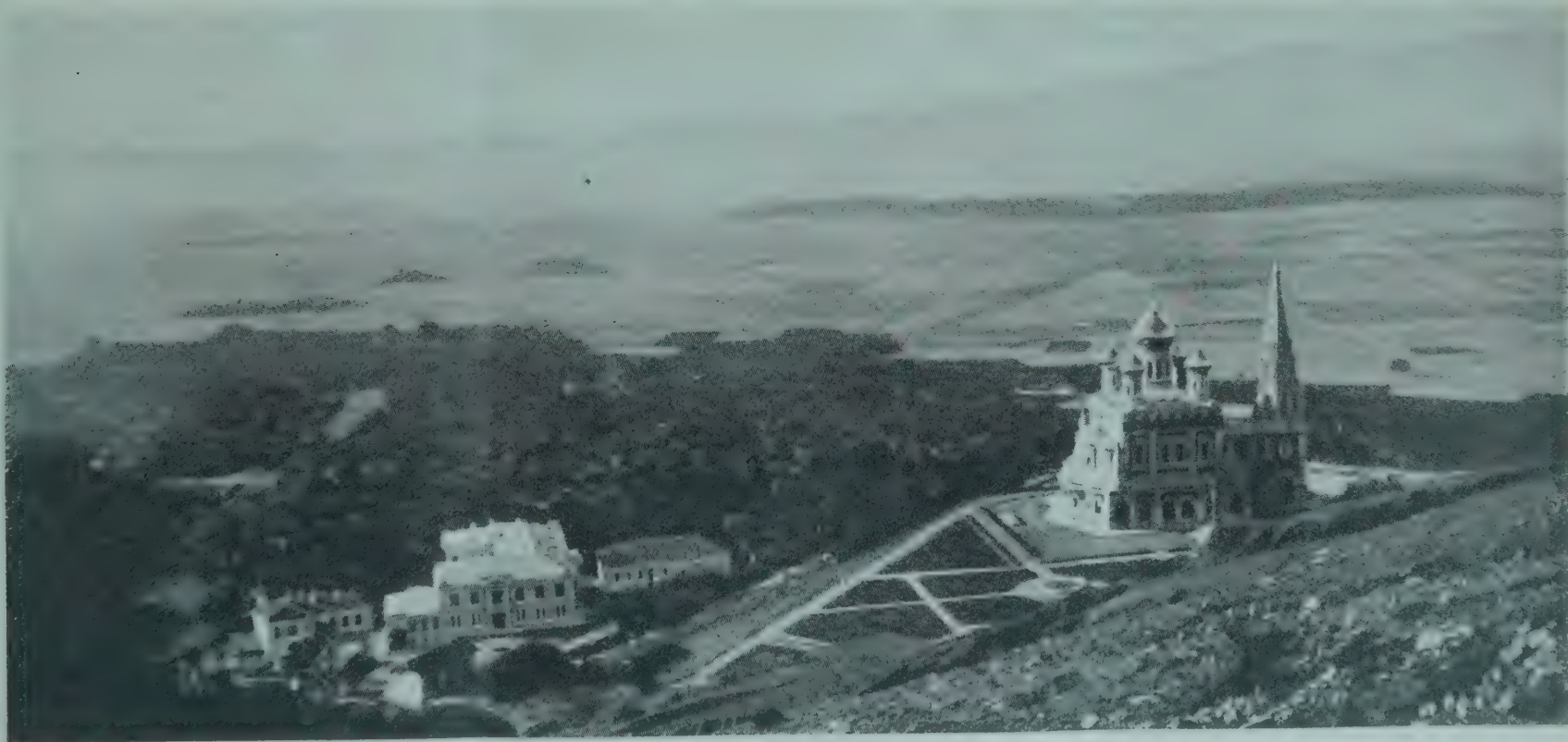
S. ARNOTT.

ROSE FORTUNE'S YELLOW

(*ROSA CHINENSIS PSEUDO INDICA*.)

BY MISS ELLEN WILLMOTT, V.M.H.

FROM time to time I have noticed references to this Rose in THE GARDEN. Each correspondent has given his own method of cultivation, all of which are stated to have been successful. Many *habitués* of the Royal Horticultural Society's shows will remember the beautiful exhibits of this Rose sent up from Lockinge for



THE RUSSIAN MONASTERY AT SHIPKA PASS ABOVE A FERTILE VALLEY OF ROSES.



BORDER CHRYSANTHEMUMS AT HAMPTON COURT.

so many years by the gardener, Mr. Fyfe. In a note by his successor upon the cultivation of this Rose at Lockinge, regret was expressed that such a fine Rose should not have become more popular during the many years it has been in cultivation in England. I believe that the reason for its scarcity is its extreme capriciousness.

Several friends who have imitated the conditions which prevail at Lockinge, and also at Barkham, have, nevertheless, been unsuccessful. I have tried to grow it in both ways, and have bestowed every care upon it, but with no better result, so I finally made away with the plants. There is, however, a plant here at Warley which will compare with the Lockinge plant for its size, wealth of bloom and fine colour. Many years ago it was put in a corner of the orangery and forgotten. The roots found their way through the box into the ground below. Beyond cutting out the old wood from time to time, the plant has had no attention whatever. I mention this instance to bear out my suggestion that to its capriciousness may be attributed its loss of popularity. It is rarely satisfactory in the open in England; sun is essential to its flowering and also to the ripening of its wood; but when put against a south wall it becomes infested with red spider, thrip, &c.

In my garden at Tresserve in Savoy, this Rose, growing over the *perron*, is one of the glories of the garden. Its wood has a better chance of ripening on the Continent than it has in England. One of your correspondents suggested that it should be called Fortune's Rose or Beauty of Glazenwood, as Fortune's Double Yellow was a misnomer. Although the colour is very varied, yellow is predominant. To call it Fortune's Rose would create confusion, in view of the large-flowered Banksia, which is also Fortune's Rose. Moreover, it is only permissible to change a plant's name when the law of priority is applied.

For those of your readers who are interested in the history of plants, and who may not have seen my account of this surpassingly beautiful Rose in "The Genus Rosa," I add the following particulars: It attracted the attention of the celebrated botanical collector, Robert Fortune, when, in 1842-6, he was travelling in China in search of new plants for the Horticultural Society of London. While at Ningpo he paid frequent visits to the different nurseries, and also to the gardens of the Mandarins, which, although small, were extremely gay, particularly during the early months of the year, and contained a number of new plants of great beauty and interest. In his narrative (Journal of the Horticultural Society, Vol. I., page 218, 1846) he thus describes his first sight of this Rose: "On entering one of the gardens on a fine morning in May, I was struck by a mass of yellow flowers which completely covered a distant part of the wall; the colour was not a common yellow, but had something of buff in it, which gave the flowers a striking and uncommon appearance. I immediately ran up to the place, and to my surprise and delight found that I had discovered a most beautiful new yellow climbing Rose. I have no doubt from what I afterwards learned that this Rose is from the more northern districts of the Chinese Empire, and will prove perfectly hardy in England." He sent plants to Chiswick in 1845. Lindley's description sounds tame after Fortune's glowing account. He says it is a straggling plant with the habit of *Rosa arvensis*, Huds., and that with its loose petals the whole flower has the aspect of a slightly domesticated wilding; but he adds that Mr. Fortune still continues to speak highly of its beauty in China.

Messrs. Standish and Noble of Bagshot endeavoured to dispel the unfavourable opinion of Lindley, attributing the defects of the Rose to unsuccessful culture and injudicious pruning

of the previous year's growth, upon which the flowers are produced. They certainly proved the truth of their remarks by exhibiting splendidly grown specimens, which in June, 1852, were the admiration of all who saw them. Since then Fortune's Yellow has been grown in many parts of the country, both in the open and under glass. It is hardy in most countries, but the inclemency of our climate often injures its blooms. Grown in the orangery at Warley, where it has protection against the vagaries of our English summer, it is greatly admired, not only for the rare beauty of its flowers, but for the graceful wreaths in which it produces them. For many years a beautiful mass of its flowers has been exhibited at the Royal Horticultural Society's shows, sent from the garden of Lady Wantage at Lockinge.

As this Rose is sometimes erroneously called *Rosa fortuniana*, it is as well to explain here that the mistake has arisen from what was probably a clerical error in Paxton's "Flower Garden," Vol. III., page 157*, where, under the heading *Rosa fortuniana*, is quoted the description of Fortune's Yellow Rose which had previously

appeared in the *Botanical Magazine*. The true *Rosa fortuniana* is described in the "Flower Garden," Vol. II., page 71†, and the description is accompanied by a good black-and-white drawing. There is no similarity between Fortune's Yellow and the true *Rosa fortuniana*, which is a large-flowered Banksian Rose, probably a hybrid of *Rosa Banksia*, Ait., and *Rosa lævigata*, Michx.; whereas Fortune's Yellow Rose, according to Crépin, may be a garden form of *Rosa gigantea*, Collett, ex Crép.

A writer in the *Gardeners' Chronicle*, June 3, 1856, describing a visit to the Horticultural Society's garden at Chiswick, says: "As to Fortune's Climbing Yellow China, its rich nankeen colour was actually glowing with salmon, the house was piled with gigantic Roses, sweeter than the sweetest of the Eastern world."

NOTES ON BORDER CHRYSANTHEMUMS.

THESE are useful in the garden for several purposes, namely, as plants for furnishing the borders during the latter part of the summer and the early part of the autumn; for lifting at a certain stage of growth, potting and placing in the greenhouse, conservatory, or glass porch to provide a prolonged display of flowers there; and also for supplying cut flowers for vases. They are extremely serviceable for amateur cultivators, especially in town and suburban gardens, as they can be grown from the

* 1852-3. Bull. Soc. Bot. Belg., Vol. XXVII., page 150 (1888).

† 1851-2. Bull. Soc. Bot. Belg., Vol. XXVIII., Part II., page 11 (1889).

cutting to the flowering stage without the aid of artificial heat or even the use of frames. Early flowering varieties are being used with great success in the flower garden in place of certain kinds of summer bedding-out subjects. In recent years many splendid varieties have been raised of dwarf habit, bearing flowers of much substance, rich colours, some very distinct. Nearly all can be grown naturally and without the need for much staking.

Now we have such results as seen in the illustration on page 544 of the varieties Aquitaine and Normandie, the former salmon bronze on an ochre ground, the latter a delicate pink. Aquitaine possesses large, drooping petals, building up a deep bloom, and Normandie produces very compact flowers. The height of both is between 2 feet and 3 feet, with branching habit. There are many excellent varieties now available, and cultivators are not able to resist the majority of them; but by far the best effect is obtained by growing fewer varieties and more plants of each.

Twelve Additional Varieties.—The following are a dozen varieties of great merit and easily grown: Caledonia, ivory white, 2 feet; Mme. Marie Massé, lilac mauve, 2 feet; Autumn Beauty, bronzy yellow, 2 feet; Cecil Wells, buttercup yellow, 2½ feet; Dolly Reeves, deep pink, 2½ feet; Gertie, salmon pink, 18 inches; Horace Martin, yellow, 2 feet; La Somme, deep mauve pink, 2½ feet; Le Pactole, bronzy yellow, 3 feet; Pink Pearl, deep pink, 2 feet; Mrs. W. Sydenham, deep crimson, 2 feet; and Champagne, rich ruby red, 2½ feet.

Positions and Soil.—An open quarter with a low shelter at a short distance away on the north and east sides is the best, but really good results follow when plants are grown in partially sheltered places, such as under the shade of high walls and trees. Clayey, gravelly and sandy as well as good loamy soils will do if they are deeply dug or trenched, and it is an easy matter to feed the growing plants. *AVON.*

CHRYSANTHEMUM ARCTICUM.

IN the month of October flowers in the rock garden are scarce, so that a plant which makes a display at this time is doubly welcome. In *Chrysanthemum arcticum* we have a dwarf-growing perennial Daisy of neat, compact habit, coming into bloom at the beginning of the month and producing a succession of large white flowers till the frost comes. It is a native of Lapland and Arctic Russia, and while, botanically, closely allied to our native Ox-eye Daisy (*C. Leucanthemum*), it differs in having erect, branching stems of a more shrubby appearance. Growing less than 12 inches high, the stems are well furnished with dark green, rounded leaves, while the white flowers are 2½ inches in diameter.

It is an easy plant to grow in a cool, partially shaded position, planted in moist, gritty loam. Owing to its late flowering period, seeds are seldom matured, but propagation may be effected by means of division in the spring. *W. I.*

NERINES, OR GUERNSEY LILIES.

BY THE REV. JOSEPH JACOB.

ARE Guernsey Lilies coming into favour? To see their flowers on a sunny day at the end of September or in October in their full beauty, looking as if they were powdered with diamond dust or made of exquisite tinsel, is to see an exceedingly lovely sight. Even without any sun they are very beautiful. The many flowered pink, rose, orange red or rich crimson umbels, daintily poised on the long, slender stems, cannot fail to attract all but the blind. Small wonder, then, that as a very prettily arranged display by Messrs. Barr and Sons of Covent Garden was one of the first things to be seen on entering the Royal Horticultural Society's Hall on a certain Tuesday in October, everyone "made" for them, and in many cases notebooks were brought out and names taken down, which is the equivalent of saying, "I like you; I must have you if I can."

This particular display was especially attractive, as Mr. Mudge had introduced a few pots of various pale-hued autumn Crocuses in front of the bright Lilies, and the effect was fine. Why does not everyone grow them? What flower can touch them in October for brightness? How is it that, after being in French and British gardens for two hundred and fifty years, it is still very much a *rara avis*? I am sorry to say there is a good reason why it has been so in the past. The true Guernsey Lily is a shy bloomer, and its behaviour in this respect has worried successive generations of florists ever since John Morin grew it in Paris and de St. Marets (de Saumarez) in Guernsey, and no coaxing or threatening has improved it.



CHRYSANTHEMUM ARCTICUM, NATIVE OF LAPLAND AND ARCTIC RUSSIA, NOW FLOWERING AT KEW.

Rapin, a French Jesuit, in the latter half of the seventeenth century, wrote:

"This flower, ye skilful Florists, often plant,
Let not our nation this fair beauty want;
And tho' she answers not your common care,
No cost nor labour on her dressing spare,
For should she but her conquering charms display,
From every fair she bears the prize away."
—Gardiner's translation.

This still remains strictly true of the old original *Nerine sarniensis*, the exquisite, broad-petalled, soft rose coloured flower that has given its popular name to the family. It is awfully shy, and anyone who will get one in three to bloom deserves a cultural commendation.

But better times are coming. Thanks to several hybridists and raisers of seedlings, new blood has been introduced, and we have now a race which is far more amenable to good and proper cultivation. There are varieties, such as *corusca*, *Fothergillii* major, *Lady Bromley*, *Epic*, *Lady de Walden*, *Mrs. Harrison* and others, which give us flowers practically every year if given the right treatment. Surely there must be some enthusiasts to whom difficulties to be overcome are but the breath of life. Here, then, is your opportunity — take up *Nerines*. They ask for a cool greenhouse in which to bloom and grow, a perfectly dry, sunny spot in which to æstivate, and a good rich, porous loam on which to feed. Messrs. Barr and Sons have been fortunate in securing many gems from the famous collection of Mr. H. J. Elwes, and these, with some additions from Guernsey and elsewhere, made up the fine collection which I have spoken of before. I noticed the following: *Lady Clementina Mitford* (pink), *Duchess of Normandy* (salmony rose), *Vivid* (rich scarlet), *Epic* (deep rose), *Mrs. Douglas* (pale rose), *Venus* (soft pink), *Rotherside* (beautiful

coral), Miss Ciceley Elwes (crimson and purple), Radiance (a deep rich cerise), Mrs. H. J. Elwes (pink), Lady Lawrence (salmon), Duchess (silvery pink and lavender), Garibaldi (magnificent cerise), Lady Bromley (deep rose and pale purple), and Lady Mary Shelley (charming soft-toned pink).

AUTUMN FLOWERS.

By E. A. BOWLES, M.A., F.L.S.

THIS year St. Luke has taken charge of the weather rather earlier than the date of his day in the calendar might warrant. His kindly interference is so thoroughly welcome, both to me and my Crocuses, that the longer St. Luke's Summer lasts the better we shall be pleased. It seems to me that never before

Horticultural Society's meeting; and my favourite of all, a nearly white or pale French grey seedling I had the good fortune to find in my seed-beds here one sunshiny morning five years ago. It has retained a trace of the lilac veinings on its inner segments, and when open in the sunshine is a very remarkable flower.

C. caspius is very good this year, and its rich orange throat makes it stand out, even from a distance, as one of the best white kinds. *C. medius* is better than usual, I think, and extra large. A colony under the light shade of the Vine pergola was singularly beautiful this morning when the mauve flowers were half expanded, and looked as though a flame burnt inside each cup, the effect of the wonderfully deep scarlet of the stigmata. *C. asturicus*, in pale and deep shades of lavender; *Salzmännii*'s rather flimsy but pearly lilac flowers; *cancellatus* in every imaginable shade between pure white, lilac and amethyst

narrower in all its parts than any other *Crocus* designer could have dared to devise without making a poor, thin flower. In this case the hair-like leaves and starry blossoms are very distinct and pleasing.

The mention of starry blossoms reminds me that *Narcissus serotinus* is now in bloom, and as it is leafless at flowering-time, I am trying the effect of planting it among some patches of *Dianthus neglectus*. It looks very happily placed now that it is in flower, and I hope its long leaves in spring will not annoy the Pinks. *Galanthus Olgae* is this year the first of the autumn Snowdrops, and is just at its best in a border I cleared of summer flowers and weeds about a month ago. Evidently the rains reached its roots better there than in the rock garden, for there not a nose has appeared as yet where my largest colony should be. A canful of water poured out as a libation a day or two ago will, I hope, soon bring it to the surface. Four blooms of *Iris unguicularis* have appeared up to the present, and *Caryopteris Mastacanthus* is in full bloom. So long may St. Luke's Summer and its precious flowers last!

TWO HARDY CÆSALPINIAS

WHEN writing of hardy *Cæsalpinias* one can only do so with a feeling of reservation, for they are only hardy in certain parts of the British Isles, and even then they must be given

favourable positions if really satisfactory results are desired. But they are so attractive, both in leaf and flower, that we may well put ourselves to a little trouble in order that they may have the best possible chance of success. They are essentially sun-loving plants and should be fully exposed to the south or south-west, with shelter from the north and east. Rather light and well-drained loamy soil should be provided, and it is advisable to place young plants out of doors in spring in order that they may become well established during the summer months. The best known species is *C. japonica*, a loose-growing Chinese and Japanese shrub with dark red branches armed with stout thorns and bearing large, handsome, bipinnate leaves made up of a large number of small leaflets. The flowers are borne in racemes, 6 inches to 12 inches long, in June and July, thirty to forty blossoms often occurring in each raceme. The petals are yellow and the long thread-like stamens bright red. It may be grown on a sunny bank or against a fence or wall in the Southern Counties, and can be increased by root cuttings in spring.

The other species is *C. Gilliesii*, a native of the Argentine Republic. It grows into a small tree in its native country, but must be planted against a wall here. The doubly pinnate leaves are divided into a large number of dainty leaflets, which are attractive throughout the summer; while the erect, terminal inflorescences, often 9 inches to 12 inches long, are lovely in August. The petals are large and rich yellow, while the thread-like stamens, each 2 inches to 3 inches long, are bright red. It stands uninjured against a wall through ordinary winters, but may be injured by severe frost. Propagation is usually by imported seeds. To give the plant a proper chance of success, it should be placed against a high wall where it will not need to be pruned severely.

W. D.



CÆSALPINIA GILLIESII, A LITTLE-KNOWN WALL SHRUB WITH YELLOW FLOWERS.

in my experience have the early and late autumn Crocuses managed to flower so simultaneously. As a rule, *C. zonatus* is almost a thing of the past by the time *pulchellus* and *lævigatus* put in an appearance. All three, however, are now at their best and revelling in the still sunny mornings. *C. speciosus* is making drifts of blue in most of the flower borders, and is fast invading many banks of the rock garden, and with its pure white form, its large pale variety *Aitchisonii*, the varied blues and lilacs of the type, and a specially bright blue one I have long grown as var. *globosus*, produces a charming amount of variation. The forms that please me most are the large, pale but richly veined variety Mr. Van Tubergen calls the *Artabir* variety; the hybrid between *speciosus* and *pulchellus* that, sooner or later, is sure to appear wherever those two species are grown side by side in any quantity, and which Messrs. Barr showed very well at a recent Royal

purple, and most of them richly feathered; the yellow and white *ochroleucus*; and *Clusii* in many shades of lilac, were all widely open. *C. nudiflorus*, so plentiful in the Pyrenees and round Biarritz, and so easily grown, yet so seldom seen, is one of the richest in colour of all, a warm bright purple. *C. Tournefortii* in pearly tints of lavender is exquisite, especially if under the shelter of some overhanging bush, for its flowers, once open, never close again, even at night. *Hadriaticus*, either pure white or with yellow and bronze markings at the throat, is a good white one, and not too particular as to its treatment. Some seedlings of *sativus Pallasii* come very near it in form and colouring. I used to think the *sativus* forms lacked yellow in the throat, and *hadriaticus* nearly always possessed some; but the seed-beds have taught me that this idea must be given up. *C. olbanus* is a queer creature, and looks like some *sativus* variety designed by Chippendale and made longer and

TWO 1916 DAFFODIL SCHEDULES.

THE appearance of the Royal Horticultural Society's and the Midland Daffodil Society's schedules is always an event of some importance to all who show Daffodils. To compare small things with great, they are perused by many Daffodilers with just as keen an interest as the daily papers were on the morning of September 23, 1915, by the British taxpayer, who was anxious to know what the new Chancellor's War Budget was like and how it affected him personally. So it is with the advent of these two leading schedules. The man who exhibits turns to them to see what is in store for him next year, for to a very large extent these are the bell-wethers of Daffodil showdom. They are scanned just as keenly in Australia and New Zealand as they are at home; and their influence is great.

This year, as the result of resolutions passed last spring by the Daffodil committee of the Royal Horticultural Society, two very important changes have been made. First, the Leedsii class has been divided, so that we now get the old type, of which Duchess of Westminster and Mrs. Langtry may be cited as typical blooms, put into one division; and the newer large-cupped varieties, like White Queen, placed in another. The determining factor is the relative length of the perianth segments, compared with the depth of the cup. What in the case of the yellow cups makes an incomparabilis, here makes a Giant Leedsii; and what makes a Barrii, here makes a Leedsii.

The change is one for the better, and I feel sure it will be very generally followed, as year by year the giants are becoming more and more numerous. The second innovation is the introduction of what may be conveniently called "Bantam" classes. For a long time it has been patent to all observers that the show tiers were no place for small flowers, however refined and beautiful they might be. Everything there had to be of the six-foot Guards type. Now, coinciding with the appearance of the Bigland Bantams, provision is made for the small 3 inch and under Daffodils. Why should not they have their opportunity? [This is a welcome change that should have been made years ago.—ED.]

A Bantam may be as useful a soldier as a Guard, and a little woman may be every bit as pretty and taking as one of greater height and more ample proportions; so a small bloom may have every requisite that makes for high quality, and yet, just because it has not the doubtful point of size, it has up to the present more often than not been strangled at its birth, or, if allowed to live, it has been

"born to blush unseen,

And waste its sweetness on the desert air."

Now, however, there is a chance for the Wendys and the Pure Golds. Moreover, many a delightful seedling will now be saved and cared for, and brought to the exhibition; and in due time our lists and our homes will be enriched with these gems of beauty and refinement. I am exceedingly glad that the small flower is to be encouraged; it is, according to my view, only what should be, and I have for a long time advocated something of the sort. It has been decided that admission to these new bantam classes should be confined to blooms the diameter of whose perianth does not exceed 3 inches. Time will show if the schedule

makers have hit upon the right qualification. If they have not, unlike the laws of the Medes and Persians, it can be altered.

In judging these classes at London and Birmingham, I sincerely hope "my Lords" will no longer attach any importance to size; in fact, I would suggest that what holds good in Pompon and Show Single Dahlia classes, where bigness is a positive detriment, should equally hold good in these. Here, at any rate, let it not be said: Colour, Balance and Size, these three; but the greatest of these is Size. J. J.

DAHLIAS.

IN this year of stress I have used a large number of Dahlias in borders and beds. It is true they are rather coarse in habit compared with the vast mass of material which we have been accustomed to; but apart from that they are undoubtedly effective to a great degree, and as we are likely to be more handicapped next year than this for necessary labour, it would be worth while to consider the value of Dahlias as a means of saving labour.

Nearly all the Dahlias grown here are treated as tuberous plants, such as Potatoes and Artichokes, and are merely broken up by pulling the roots in pieces when the buds are beginning to push and immediately planted, setting the pieces so that the buds are 3 inches or 4 inches below the surface. That system in itself saves an immense amount

of labour. It is asked, What about frost? Planted in April, the tops do not appear till frosts are usually past, and, strange as it may appear, I do not find these hardily grown plants in spring so susceptible to cold as Dahlias are on the approach of cold in autumn. Then, it is obvious that a plant that will cover a space of from 3 feet to 6 feet square must effect an enormous saving of labour over plants that would entail the

preparation and planting at 9 inches to 12 inches apart.

It may be asked, How about the labour involved in staking and tying? Neither is essential for decorative purposes; rather are they to be deprecated. When the Dahlia shoots, three or four to each plant, are a foot long, all that is needed for the season is to fasten the points close to the ground by means



CÆSALPINIA JAPONICA, A HANDSOME SHRUB FOR A SUNNY BORDER.

of strong hooked sticks, or pieces of Snowberry bent to form a peg, which is a simpler method. As the time for lifting the tubers is again drawing near, I may be permitted to add that they are best preserved through the winter by allowing as much soil to adhere to the tubers as possible. There is no preservative equal to soil, and its removal only renders the safe keeping of the tubers a risk. Dryness and a temperature of about 45° to 50° are also advantageous. R. P. B.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Early Pot Vines.—To obtain ripe Grapes at the end of April or early in May, the Vines must now be placed in the forcing-house. A lean-to house facing south is most suitable for the early forcing of Grapes, and the house should be well provided with hot-water pipes. The pots should be plunged in a moderately warm hot-bed to help root action. No fire-heat should be necessary for the first two or three weeks; even then only sufficient should be allowed to keep the temperature up to 50°. This may be increased as the growth of the Vines advances. Spray the rods twice daily when the weather is fine, using lukewarm rain-water.

Early Permanent Vines.—If early Grapes are to be obtained from permanent Vines, the house must be closed at once, providing the wood is perfectly ripe. The general treatment of the Vines during the first few weeks may be similar to that recommended for pot Vines. The rods should not be secured permanently to the trellis till the buds are on the point of bursting into growth. At this stage the rods should be given their final scrubbing.

Pot Fruit Trees.—These must now be placed in their winter quarters, except those which will be required for early forcing. These may remain outdoors till the time arrives to start them into growth. In the event of a continued spell of wet weather, they should be placed in a cool, airy house. The main batch of trees may be plunged in leaves or Bracken at the foot of a wall facing south. Here they will be somewhat sheltered from heavy rains. Pot Fig trees must be placed in a cool house, where they will be safe from frost.

Plants Under Glass.

Fuchsias.—The cuttings which were inserted in August or September will now need a shift into larger pots. Pot fairly firmly in a light, rich compost, and keep them growing steadily in a temperature of 50° or 55°. Keep them near to the light and afford them plenty of room. Old plants may be gradually induced to rest by giving them less water at the roots. In a week or two they may be laid on their sides beneath a stage in a cool house.

Violets.—Decayed leaves must be removed regularly, or damage to the flowers will result. Afford the plants abundance of fresh air, and during favourable weather remove the lights altogether. When water is needed, apply it, if possible, on a fine morning, so that the foliage will get quite dry by night.

The Flower Garden.

Lily of the Valley.—This needs lifting and replanting every two or three years. To ensure a good supply of flowers annually, only half the bed should be dealt with at one time. The ground must be deeply dug and well manured, taking care that it is well cleaned in the process. Select the strongest crowns for planting, which must be done in rows about 9 inches apart.

Planting Roses.—The making of new Rose beds or replanting old ones should be done, if possible, before the turn of the year. The ground should be trenched and plenty of well-rotted farmyard manure mixed in with it. Lift the plants with care, lay the roots in the ground on a sheltered border till the beds are ready for planting, and plant firmly. Standards will need the support of strong stakes as soon as they are planted. In planting climbing Roses against a wall or fence, make a hole large enough to take a barrow-load of soil. Newly planted Roses must be well protected during times of severe frost.

The Rock Garden.—The work in the rock garden at the present time consists chiefly in keeping the plants clear of dead foliage and leaves, or many of the choice plants will be damaged. When planting bulbs, take the opportunity to cover the roots of plants which have become exposed. Slugs and snails will be plentiful, and must be diligently sought after.

The Hardy Fruit Garden.

Morello Cherries.—The trees may now be pruned and trained. The fruits of the Morello Cherry are borne on the previous season's growth; therefore just sufficient of this must be left to tie in. Old trees should first be carefully examined, and any old branches that are becoming bare at the base must be cut out, thus leaving more room for the young wood. Before commencing to train the trees, any cleaning which may be necessary should be done.

Strawberries.—Plants which have been put out this season must have all runners removed. When the ground is dry enough, dust soot between the plants, then carefully disturb the soil with the hoe. A mulch of decomposed farmyard manure will be of considerable benefit.

The Kitchen Garden.

Tomatoes.—Plants in fruit must be well supplied with stimulants. Place a little fresh material on the surface of the pots to encourage fresh roots. To expose the fruits better to the light, remove a portion of the foliage. Maintain a temperature of 60°, and at the same time admit air to the house, more or less according to outside conditions. A sowing may now be made for the earliest supplies next year.

Potatoes.—The method of growing the first crop of Potatoes in pots is an excellent one, as they may be grown quite easily in fruit-houses before the fruit trees are too far advanced. For this purpose the tubers must now be selected and placed singly in boxes to sprout. The time of planting will, of course, be governed by the date it is desirable to have new tubers ready for use.

Globe Artichokes.—All dead foliage must now be removed from the plants, and, as a protection against frost, a quantity of ashes must be placed round the base of the plants. In some districts it will be necessary to cover them with Bracken or litter when frost is very severe.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

Plants Under Glass.

Shading.—All blinds and shading should now be taken from the roofs of glass houses, if this has not already been done. Where the shading has been put on in liquid form with a brush or syringe, this will be a good opportunity for washing the entire roofs of plant houses, as dirt and soot adhering to the glass prevent the full amount of light reaching the plants during winter. Especially is this the case in and around large towns. The plants most likely to suffer in this respect are Orchids and other flowering plants.

Freeseas are now growing stronger and require staking as the growths lengthen. They resent being forced, and this should not be attempted until the flower-buds are visible. A cool, well-ventilated house suits them best, so that where a special pit is not available, a shelf near the glass in a Tree Carnation or Malmaison house will do nicely.

Bulbs.—Roman Hyacinths and other early bulbs may be introduced to heat as soon as it is evident they are sufficiently rooted. It prevents disappointment to delay starting them for a few days or even weeks, rather than to be in too great a hurry and then have failure, which is inevitable when the bulbs are not ready for forcing. To increase the length of Roman Hyacinth stems, place a good layer of moss over the growths after bringing the plants indoors.

Zonal Pelargoniums.—Where plants have been grown for winter flowering, there is now a good display, as they are very free flowering plants. The most important point in their successful culture through the winter is careful watering, as they prefer to be kept drier than some subjects. A temperature of from 50° to 55° should be maintained at night, allowing it to rise slightly during the day.

The Kitchen Garden.

Tomatoes.—As room is generally scarce indoors at this season, any plants which are nearly exhausted can be stripped of what fruit may yet remain. The green fruit, if put on a warm, sunny shelf in some glass house, will ripen sufficiently to be fit for use in the kitchen. The young plants intended for early fruiting should be grown as sturdily as possible by keeping them fairly cool and near the glass.

Rhubarb.—When there has been sufficient frost, the roots can be lifted and forced. The usual and most easy method is to place them in a Mushroom-house. Where this is not practicable, they can be put near the pipes under stages, or a special hot-bed be made up for them.

Chicory.—As the leaves die down, a few roots can be lifted, either boxed or potted up, and put in the dark, where the leaves will be produced in a blanched condition. A simple way is to pot five crowns in a 10-inch pot, and cover with an inverted pot of the same size. If put in brisk heat, the Chicory will be ready for use in a fortnight to three weeks.

Fruit Under Glass.

Early Peach-House.—The trees in this house will now have dropped all their foliage, so that the house should now be prepared for starting in December. The ties should all be undone, and the branches slung from the wires in bundles so that the washing of the glass and woodwork can be done more easily. A strong mixture of soft soap and hot water should be used for the scrubbing. This over, the trees should be dressed with some insecticide, such as Gishurst Compound. If disbudding has been properly attended to during the growing season, little or no pruning will be required, except removing bare pieces of branches where they can be replaced by younger wood. When the branches have been tied up in their places, the borders must receive a liberal top-dressing. First scrape off all loose soil; then, without damaging any of the surface roots, lightly fork it over. The soil used for top-dressing should be good fibrous loam, enriched with a good lasting artificial manure. It is also very important to add a quantity of lime; this is most essential for stone fruit.

The Hardy Fruit Garden.

Fruit-Room.—For some time after Apples are gathered, there is generally an amount of sweat or moisture given off. This should be allowed to escape freely from the fruit by ample ventilation. When it is seen that this has taken place and the fruit is again quite dry, the ventilators should not be too freely used, so long as the atmosphere is maintained wholesome, otherwise the Apples would shrivel. Pears, however, keep much better in a dry atmosphere.

The Flower Garden.

Planting Shrubs.—Deciduous shrubs can now be planted with safety. The evergreens in most cases, however, are better left until spring, especially in the cases of Yew and Holly. After planting, the importance of protecting against damage by wind should not be forgotten.

Chrysanthemums.—Unless the weather should be very severe, the plants can remain where they are for some time yet. As, however, the varieties are not easily distinguished by their foliage, it should be seen that they are correctly labelled while yet in flower, to prevent mistakes when lifting the stock which is to be retained for producing cuttings.

Herbaceous Border.—With the exception of some late Michaelmas Daisies, this part of the garden is now presenting a bare and untidy appearance where the plants have finished flowering. The majority of the plants are ready for cutting over. This means also the removal of all stakes, which should be tied up in bundles in their respective sizes, so that they may be put tidily in the store for the winter.

Lawns to be kept looking trim and tidy at this season require frequent rolling and brushing, as leaves and worms keep them in a constant state of untidiness.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

A GOOD CULINARY APPLE.

IN the cultivation of Apples, and particularly those varieties that are to be used for cooking purposes, one of the greatest difficulties that besets the inexperienced is the selection of varieties. So many sorts of Apples are now obtainable, and each is set forth in the nurseryman's catalogue as being well worth growing, that the novice may be excused for planting trees of sorts that are, to say the best about them, of second quality. Bramley's Seedling is undoubtedly the best of its kind for culinary purposes, and one that may be planted freely both for private use and market purposes.

In common with many other good things, it was a long time before fruit-growers could be persuaded that in Bramley's Seedling they had an Apple which is superior to any other of its class, and one that would fill the same high position in the culinary section as Cox's Orange Pippin does in the dessert varieties. During the last decade, however, up-to-date growers have realised its possibilities, and so great has been the demand for young trees that nurserymen have found it exceedingly difficult to propagate it fast enough. We know of several nurseries where, owing to the enormous demand, young trees of other varieties which have not sold so well have been cut down and the stocks regrafted with Bramley's Seedling.

The history of this Apple is, fortunately, very well known. In common with a number of other good fruits, it does not, so far as can be ascertained, owe its existence to the hybridist's skill, but originated as a chance seedling at Southwell in Nottinghamshire. Two pips from an Apple, name unknown, were sown in a pot by a Miss Brailsford of Easthorpe, Southwell. Both grew, but one of the seedlings eventually died. The other flourished and was planted out in the open garden by Miss Brailsford, and in due course developed into a large tree, whence all the trees of Bramley's Seedling now in existence—and there must be millions—have sprung.

The lady in question eventually sold the garden, including the Apple tree, to a Southwell butcher, Mr. Matthew Bramley. By this time the tree had attained a large size and was bearing good crops of fruit. Luckily for present-day fruit-growers, the attention of Mr. H. Merryweather, who has extensive nurseries at Southwell, was drawn to the Apple, and with sound judgment he decided that it was one well worth cultivating. In 1876 he had shown fruits before the Royal Horticultural Society, and received a "highly commended" certificate for them. In 1883 this Apple received a first-class certificate, the highest award that is granted by the society to any new fruit, flower or vegetable.

But, as has already been stated, in spite of this high award growers were sceptical about its possibilities, and only a few who were more far-seeing than the majority planted trees in quantity. That they were justified in doing so has been abundantly proved during recent years, as good

samples of this variety always find a ready market at high prices, in spite of the keen Colonial competition that has to be met. It has a very vigorous constitution, makes a shapely tree, and has large, leathery foliage that is not so susceptible to disease as the softer leaves of many other Apples. Grown in standard or half-standard form it is an ideal orchard Apple, and for garden purposes it does equally as well grafted on the Paradise stock which has a dwarfing effect on the tree and induces it to bear fruit while in a young state. The fruits are in season from the end of September until well into the New Year.

In the nurseries of Messrs. H. Merryweather, Southwell, there is an interesting orchard devoted entirely to Bramley's Seedling. The trees are not planted as thickly as they might or ought to have been, but there are seventy-five trees to three acres of land, and this year the orchard has produced 30 tons of Bramley's Seedling, including all small and big fruits, of which 25 tons are fine saleable fruit of first and second grades. Standard trees of this variety, as grown



APPLE, BRAMLEY'S SEEDLING, A HEAVY CROPPER KEEPING WELL INTO THE NEW YEAR.

in this orchard, are in their prime when between forty and fifty years of age. A much younger Bramley orchard, about three acres in extent, planted nineteen years ago, and consisting of 130 half-standards, has this year produced 20 tons of good saleable apples, and not including fallen and small fruit.

LATE - FLOWERED LILIES.

THE Lily season out of doors extends from the flowering of *Lilium pyrenaicum* (which takes place during the latter part of May) till the early autumn. Then the nights grow too cold for the full development of the later blossoms of those that flower at that time. Some kinds that are, as a rule, at their best much earlier in the season will sometimes put off their flowering till a good deal later. An occasional specimen of *Lilium auratum* will furnish a case in point.

Prominently among the late-flowered Lilies stands *Lilium speciosum*, represented in our gardens by several fine and distinct varieties. Supplies of this Lily reach here both from Holland and Japan. The Dutch-grown bulbs flower two or three weeks earlier than the Japanese, but after a season or two in this country the flowering period of the latter is accelerated.

The best of the Japanese bulbs are very fine and yield a correspondingly grand display of blossoms. In richness of colouring they are unsurpassed, and the white-flowered variety, *Krätzeri*, is by far the most vigorous of those bearing flowers of that tint. The later blossoms will, in the open ground, sometimes yield a display till September is well advanced. Even when the weather conditions are unfavourable for the development of the blossoms in the open ground they will, if cut, taken into the dwelling-house and placed in water, expand nicely. A good sandy loam is very suitable for the requirements of *Lilium speciosum*, but it cannot be regarded as in any way a fastidious Lily, whether grown in

the open ground or in pots. These last named are, if kept cool and allowed to flower at their normal season, very useful for the embellishment of the greenhouse at a time when many summer-blooming occupants of that structure are on the wane. One desirable feature of this Lily is that, when subjected to pot culture, insect pests do not give any trouble, as they do in the case of *Lilium longiflorum*.

A grand late-flowering Lily for the outdoor garden is that largely sent here from Japan under the name of *Lilium tigrinum Fortunei*, or *Fortunei giganteum*. The Japanese bulbs are of immense size, and the growth is correspondingly vigorous. The best examples will often reach a height of as much as 6 feet, the stem being terminated by a large pyramidal-shaped raceme of blossoms. As many as fifty flowers are sometimes borne on one stem. Apart from its later-flowering qualities, this Lily differs from the ordinary form of *L. tigrinum* in the blossoms being paler and the stems, as well as the flower-buds, clothed with a woolly down. The ordinary *Lilium tigrinum*,

with its varieties *Leopoldii* or *splendens* and *flore plena*, are all earlier in flowering than this.

That noble Burmese Lily, *Lilium sulphureum*, frequently flowers so late that the blossoms do not open properly. For this reason it is often grown in pots and treated as a greenhouse plant. Under these conditions the tall, slender shafts, crowded with narrow leaves and terminated by large funnel-shaped blossoms of a rich ochre yellow inside, with a reddish flush on the exterior, are very striking.

Another species, native of the same district, frequently behaves in a similar manner. This is the distinct *Lilium nepalense*, which created such a *furor* when it was first shown in bloom some twenty-seven years ago. The flowers of this are reflexed, somewhat after the manner of a Martagon Lily. The colour is a greenish yellow, with a chocolate purple interior. Unless in particularly favoured districts, these two Burmese species must be regarded more in the light of greenhouse than hardy kinds, a remark which also applies to the now very rare *Lilium neilgherrense*, which is even later in flowering than they.

Lilium longiflorum, or at all events the form known usually as *Wilsonii* or *grandiflorum*, will often push up secondary shoots at this season, which each bear a solitary flower. This habit of blooming a second time was strongly claimed for *Lilium Harrisii* when the bulbs were first sent here from Bermuda, but we heard little about it afterwards. While the Lilies here mentioned are the latest of those that bloom naturally in the open ground, the practice of retarding, so generally followed in the case of some kinds, has upset the seasons altogether. By this means blooms of *L. longiflorum* and *L. speciosum*, and, to a lesser extent, others, may be had all the year round. H. P.

POTATO DISEASE.

It has been demonstrated repeatedly that even with varieties subject to disease, comparatively healthy crops can be obtained if the tubers are lifted as soon as the haulm has died down. Apart from the risk of attack by this disease, tubers left in heavy or water-logged soil are liable to suffer from lack of air, with the result that they rot quickly, either in the soil or subsequently in the clamp. It is essential for good keeping that the tubers should be stored clean and dry, with their vitality unimpaired. In a dry, well-ventilated clamp, disease does not spread rapidly, although dead or diseased tubers generally rot. On the other hand, if the clamp is moist or badly ventilated, spores from diseased tubers may infect healthy ones. All diseased and damaged tubers should be excluded from the clamp. Those least affected could be boiled and fed to pigs. The clamp should be made as narrow as practicable, and should be covered to a depth of about 6 inches with a layer of stout straw, through which air can circulate freely. A thin layer of soil, sufficient to keep the straw in position, should be put on, followed by a thicker covering in November to keep out frost. The crest of the clamp must be freely ventilated. It is advisable to store seed tubers in boxes or small lots, and not to mix them with the "ware." In the event, however, of much disease, a change of seed from a healthy crop should be obtained for planting next season. Those who desire further information on the subject of storing Potatoes should apply for Leaflet 173 ("Potato Growing"), issued by the Board of Agriculture and Fisheries, Whitehall Place, S.W.

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

Offices: 20, Tavistock Street, Covent Garden, W.C.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

TREES AND SHRUBS.

EUONYMUS NEAR TIFLIS (L. W.).—We are not quite sure, from your description, what the trouble which is affecting your *Euonymus* actually is, though we suspect it is due to scale insects of some kind. For these we think you will find nothing better than spraying with paraffin emulsion whenever they are to be seen, making the paraffin emulsion by dissolving a quarter of a pound of soft soap in boiling water, adding two and a-half pints of paraffin (burning oil), and stirring thoroughly with a handful of twigs for about twenty minutes, until the whole has made a creamy mass from which the paraffin does not separate; then add water to make ten gallons. Spray so as to cover all parts of the plants. There are two other very serious pests of *Euonymus*—the lesser ermine moth and the *Euonymus* mildew. The former feeds in great numbers on the bushes, making webs in which the caterpillars pass the night and wet days. If the webs can be cut out while the caterpillars are at home, this is the best treatment; if not, then spraying with lead arsenate should be resorted to, using the arsenate at the rate of 1 lb. to 15 gallons of water. Failing this, use Paris green at the rate of 1 lb. to 160 gallons of water. The caterpillars are small, and at first dirty white with black spots upon them. The mildew covers the ends of the branches and the young leaves with a white felted mycelium, which disturbs the growth and disfigures the bushes very much. Persistent spraying with Bordeaux mixture or Burgundy mixture is probably the best way to keep this in check, or, failing that, with potassium sulphide at the rate of 1 oz. to 3 gallons of water.

ROSE GARDEN.

PILLAR ROSES FOR EXPOSED SITUATION BY THE SEA (Subscriber).—We advise Conrad F. Meyer, American Pillar, Excelsa, Sander's White, Tausendschön or Minnehaha.

ROSES FOR EXHIBITION (R. E. T.).—Of your list we should recommend the following six: Mrs. R. D. McClure, Mrs. George Norwood, Jonkheer J. L. Mock, Lieutenant Chaure, Mrs. George Shawyer and Lady Barham.

YELLOW ROSE TO REPLACE RAYON D'OR (Miss Rowland).—Undoubtedly Constance will replace Rayon d'Or. It possesses more vigour and is practically the same colour. Three good Pears for October and November are Louise Bonne of Jersey, Marie Louise and Beurre Superfin.

CLIMBING ROSE FOR EAST WALL (H. B. W.).—Tea Rambler would be very showy in early June, but it is not so very hardy. Gerbe Rose is fine as an individual flower, but it is not profuse enough to make a great show. We think one of the best for your purpose would be Miss

Helyett. It is a very beautiful variety, and should be in every garden.

FUNGUS ON AUSTRIAN BRIARS (M. H.).—The Rose is attacked by the Rose rust fungus; *Phragmidium subcorticium*, the stage on the shoot sent being the one usually found in spring. The fungus generally winters on the under surfaces of fallen leaves, where its spores now form dark, almost black, lumps. Much may be done to check the fungus by gathering and burning fallen leaves, and by pruning out the shoots which show the red spring form of the attack, and burning them. In addition to this, spraying the bushes with a rose red solution of potassium permanganate would be a wise measure.

TEA ROSES FOR EXHIBITION IN COOL HOUSE (R. F. C.).—The varieties you name should do very well for a cool house, but you should also add Lady Plymouth and W. R. Smith. We advise you to pot the plants without delay and plunge them outdoors in a shady position well exposed. Protect from severe frost by hoops and mats, or you could place the plants indoors until frost is past. Keep them outdoors all the time otherwise, excepting when showing bud; then put them inside, keeping the house well ventilated and shaded during bright sunshine. If you could arrange some glass lights on a framework just to shelter the plants from rain, it would be a good plan, allowing air all around. Prune in April and plunge the plants in a north aspect until the middle of May, then put them in full sun until the buds show colour. The more natural treatment you can give the better. You would find a small canvas tent an excellent thing to assist retarding after the buds are developed. This would protect your blooms, and at the same time keep the plants cooler than glass.

THE GREENHOUSE.

BRUGMANSIA LEAVES EATEN (A. J. B.).—The *Brugmansia* has been damaged by a bug piercing its foliage while quite young, probably while still in the bud state. Possibly spraying with paraffin emulsion at intervals would check the damage. The Cantaloupe leaves are suffering from something wrong with the atmosphere of the house in which they are growing. It is probably not ventilated sufficiently.

AURICULAS (C. O. B.).—We are glad you appreciate the *Auricula* notes that appear in THE GARDEN, and we are always ready to reply to any query that may arise in the cultivation of these plants. At this season a few plants often throw up a flower-spike, but no anxiety need be felt on that score; as a general rule the plants are robust, and it cannot be prevented. Directly the buds are formed they should be pinched off, leaving the flower-stem to decay naturally. At this period of the year it is advisable to watch such plants. When the stem is yellow, it will readily part from the plant, and then a little powdered charcoal should be sprinkled at the point where the stem was removed. As a rule this will prevent any further decay. The plants will flower again in the spring.

SPECIMEN FOR NAME AND MODE OF PROPAGATION (G. B., Anglesea).—The name of the specimen sent is *Tecoma jasminoides*. It is a native of Australia, whence it was introduced fully a century ago. This *Tecoma* is propagated by cuttings, which are not at all difficult to root if ordinary care and attention is given. The cuttings should be taken in the spring or early summer. They must be formed of the current season's shoots, selected when they have lost their succulent character and become partially woody. A length of 3 inches to 4 inches is very suitable for the cuttings, which should be separated immediately below a joint and the bottom pair of leaves removed, when they are ready for insertion. The pots prepared for their reception should be clean, well drained, and filled with a mixture of loam, peat and silver sand in equal parts, the whole being passed through a sieve with a quarter of an inch mesh. On the top of the soil place a thin layer of clean silver sand. Then dibble the cuttings therein, taking care that the soil is firmly fixed around them. After this give a thorough watering through a fine rose, and place the cuttings in a close propagating-case in a structure somewhat warmer than an ordinary greenhouse. They will, of course, need to be shaded from the sun. If you have no propagating-case available, cover the cuttings with a bell-glass.

TREATMENT OF EUCHARIS BULBS (Hon. Mrs. S.).—We fear that your suggestion to keep the bulbs of *Eucharis* in a dormant state till happier times is not likely to prove successful. Carefully dried off and ripened, they might be kept without deterioration for a while, if you could ensure the "happier times" coming next spring. To thoroughly ripen off evergreen bulbs like the *Eucharis*, it should be done gradually, which you evidently do not contemplate, as you speak of getting flowers from them yet. By the time the blossoms are over, the dull days will be upon us, and they are not favourable for the ripening of vegetation of any kind. We have known dormant bulbs of *Eucharis* to be kept for nearly a year without injury, but the conditions were very different from yours. They were bulbs imported from Brazil, and under the influence of a tropical sun had been ripened to such an extent that by the time they reached this country they were almost as hard as a stone. In this way they passed through a winter without injury. It must, however, be borne in mind that they were kept on a dry shelf in a structure where the thermometer ranged from 50° to 60°. You do not say under what conditions you purpose keeping your bulbs during the winter, but, if without fire-heat, they will, even if dormant, be almost sure to perish.

THE GARDEN.

No. 2295.—VOL. LXXIX.

NOVEMBER 13, 1915.

NOTES OF THE WEEK.

A Late Border Chrysanthemum.—A recent visit to the historic gardens at Hampton Court revealed the fact that whereas most border Chrysanthemums are now over, or at least past their best, Merstham Beauty continues to flower with the greatest freedom. It is a bright single pink, with a white ray around the yellow disc florets. When seen in large, bold masses it is a striking and very effective border plant.

Peach Peregrine.—I have found this a splendid variety for a south wall. Fruits have been produced from our tree weighing from 8oz. to 10½oz. They have a smooth, brilliant crimson skin, the flavour is melting and excellent, and are in season at the end of August. This variety is also suitable for growing under glass.—C. RUSE, *Sulhamstead*.

Sedum spectabile as a Bee Flower.—I am not a keeper of bees, hence I know but little of the ways of these busy insects. That *Sedum spectabile* is particularly attractive to them, as well as to butterflies and others, when it is in flower is well exemplified in my own garden. The heads of bloom are at times crowded with bees, but the result of imbibing the nectar is that many of them get into quite an intoxicated condition, so that they cannot fly for a time; in fact, some of them fall to the ground and perish. I have sometimes wondered if those that fly away with the intention of going home are able to distinguish their own hives, as well-behaved bees should. With regard to the ornamental qualities of this *Sedum* there can be no question. The variety *atropurpureum*, with its richly coloured blossoms, is also worthy of a place in every garden.—H. P.

Escallonia macrantha.—What a glorious shrub this is for seaside planting! In and about Colwyn Bay it is used with good effect for hedges, wall climbers, specimens, and even employed as standards. The deep green of its foliage, combined with the rosy pink blossoms, which are more or less in evidence, form a pleasing contrast, especially as a wall climber. At the "Flagstaff," on the western side of Colwyn, at an elevation of 450 feet

above sea-level, is one of the finest hedges of this shrub I have yet seen. It is fully 80 yards long, 5 feet high, and as much as 15 feet in width, a dense thicket of foliage and blossom.—E. M.

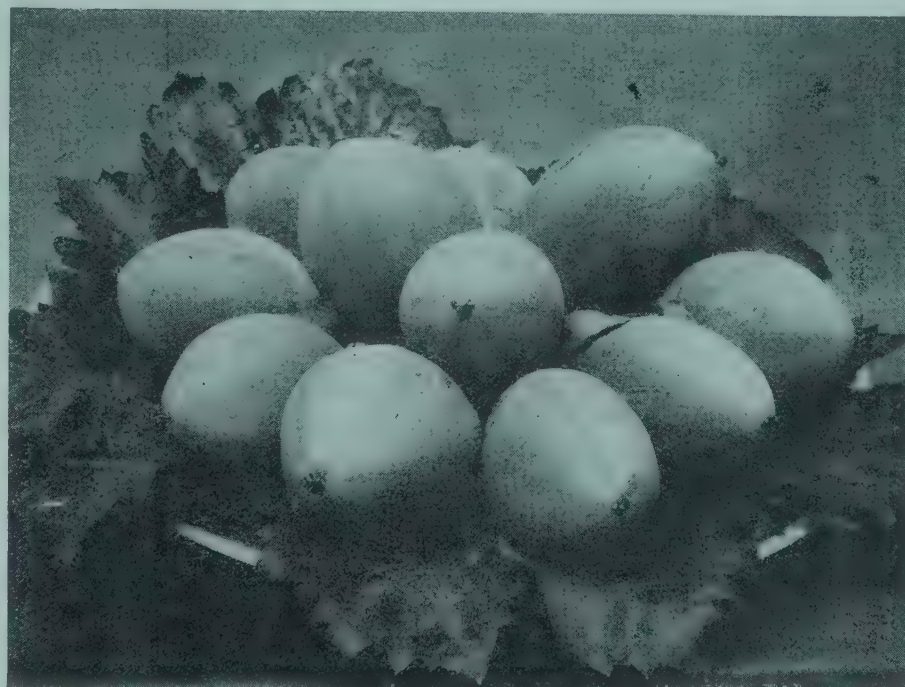
Fruit of *Passiflora edulis*.—This species is a native of Brazil, and it is said to carry heavier crops of fruit than any other Passion Flower. Occasionally it is grown under glass in this country for the sake of its fruits, the pulp of which has an agreeable orange, though acid, flavour. It is not, however, to be compared with a well-ripened *Granadilla* (*P. quadrangularis*), a fruit of which often weighs as much as 3lb. and measures

prior to a new issue of that useful publication. Varieties registered since the issue of 1914 will be included in the new edition. Raisers and distributors are reminded that the registration fee is 2s. 6d. per variety, and those who wish to have their newly named varieties included in the new Classification List should apply at once for registration forms to Mr. C. H. Curtis, hon. secretary, Narcissus Committee, Adelaide Road, Brentford, Middlesex.

Gladiolus masoniorum.—This interesting and distinct *Gladiolus* was first discovered in Tembuland in 1910, and although perhaps not so conspicuous as some of the better-known kinds, it is certainly worth attention. It was sent to the Cambridge Botanic Garden in 1911, where it was grown in pots, and flowered for the first time in 1912. The following year it was tried outside along a border of one of the plant-houses, where it flowered the same year and has done so each year since. At the present time (November 6) it is bearing spikes of soft creamy coloured flowers. It is not likely to prove hardy enough for cultivating in the open, owing to its late flowering, although it has stood 11° of frost in its present position; but a group of this little-known plant, flowering outdoors early in November, is certainly interesting.

A Useful Acacia.—Flowering from now onwards through the winter, *Acacia platyptera*, the Winged

Acacia, is one of the first species to blossom, and is thus a most useful plant. It may be grown in pots for several years, and later is useful to plant in the greenhouse border against a wall, to clothe a pillar, or supported with stakes when the plants attain a height of 6 feet or more. If a fair number of the old flowering growths are cut out each year in spring, the plants can be grown successfully in 6-inch, 7-inch and 8-inch pots for some years. It is a native of the Swan River, and the flowers are golden yellow. *Acacia alata* is a useful companion plant, similar in habit, with pale yellow or sulphur coloured blossoms, freely produced at the present time.



A DISH OF FRUITS OF PASSIFLORA EDULIS.

6 inches or more in diameter. The fruits of *P. edulis* are about the size of a hen's egg and pale bluish in colour. The best-known Passion Flower in this country is undoubtedly *P. caerulea*, often seen outdoors growing over porchways and sunny walls. The orange-coloured fruits are still hanging freely on this hardy species, but they are not edible as far as we are aware.

A Classified List of Daffodil Names.—We are asked to announce that the classification sub-committee of the Royal Horticultural Society's Narcissus and Tulip committee will meet at an early date for the purpose of revising the "Classified List of Daffodil Names"

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Plum Coe's Golden Drop and Pear Pitmaston Duchess.—Your correspondent "E. M.'s" experience with Plum Coe's Golden Drop, issue October 30, page 527, is not mine. Here I have old trees the fruits of which

had the curiosity to scratch down and find the bulb, we have found it plump and healthy, just, in fact, as if it had been set a day or two before. For all the world it might have gone off instantly to sleep the moment it was potted, and forgotten to grow. What happened to these sleepers I was anxious to find out, so certain "gentlemen" were marked down, and last August they were duly planted once again. They are now growing away as strongly as anyone could wish to see.

Their rest has done them good, or they have got tired of doing nothing and have amended their ways. Similar eccentric behaviour is often found in certain members of the Lachenalia family, as, for example, in the true *L. aurea* and some of its immediate offspring. Perhaps some of your readers who are learned in teratology (I hope I have got the right word) will give us an explanation, for doubtless others besides myself who grow Freesias and Lachenalias will be interested to hear the scientific explanation. — JOSEPH JACOB.

Eucalypts for English Gardens.—I have read with interest the recent articles on the Eucalypts, which appeared in your columns. Perhaps my own experience will be of interest. I have often raised Eucalypts from seed, but until recently utilised them as house plants. When they grew too large to handle I threw them away and raised some more. Some time ago, however, I decided to plant out a tree that had outgrown the house, and did so. This tree was some three years old.

At the same time I planted out a yearling. That happened six

years ago. Now, the seven year old tree is 29 feet high and has a trunk about 6 inches in diameter. The older tree is about 15 feet high, with a trunk in proportion. Both are of the same variety and both are planted in a sheltered position with a south aspect. This seems to prove Mr. E. A. Bowles' statement that potted plants make inferior garden specimens. Though both of my trees were potted, the one which was planted in the open when young has done far better than the other. Unfortunately, the gardener mixed the seeds, and I do not know whether the trees are *E. resinifera* or *E. globulus*.

I am sending sprays cut from the larger tree to you for identification. The trees have one peculiarity: at the same time they produce differently shaped leaves. The sickle-shaped leaves are produced on the upper 20 feet or so; the rounded, opposite type nearer the ground. Ordinary staking I have found useless; a tripod of 2 inch by 2 inch beams seems the only satisfactory method of keeping these top-heavy trees in the ground. Here we are 300 feet to 400 feet above sea-level, and are exposed to south-west gales. Our soil is loam on chalk—very little loam and lots of chalk, save where trenches have been dug and filled with purchased soil. The Eucalypts are not in well-trenched soil—perhaps it is 18 inches deep under the stem. Chalk should suit the Eucalyptus, judging both from my experience and from what I have heard from Australians. The trees can absorb an unlimited supply of water, and I have heard of cases where they choked drains with their roots, obtaining access thereto through infinitesimal flaws in the masonry. Chalk holds water like a sponge, and thus should suit the Eucalyptus to perfection.—R. S. D., Sutton, Surrey. [The leaves sent are those of *Eucalyptus globulus*. The blue and more rounded are the immature, and the dark and sickle-shaped ones the final, form assumed by the tree when it reaches flowering age. In view of the great interest now taken in Eucalypts grown in this country, and not with the idea of making an unfavourable comparison, we illustrate on this page a remarkably fine tree of *E. globulus* growing in the Botanic Gardens, Christchurch, New Zealand. —ED.]

EPITAPH ON A GARDEN FRIEND.

THIS patriot, born in peace, in war laid down
His doublet red for vesture earthen brown;
But haply, patriot still, his small soul flies
To perch upon the gate of Paradise,
And greets with music all that come his way
From deck or trench, who loved the Robin's lay.
MARY ADAIR MACDONALD, in *Country Life*.

The Origin of the Loganberry.—I read an article on page 487 of THE GARDEN for October 2 in which it is said of the Loganberry, "Reputedly it is the result of a cross between a Blackberry and a Raspberry, but some are inclined to think that it is a true natural species." The Loganberry was first introduced by and takes its name from Judge Logan somewhere between 1890 and 1895, the result of a cross between a Blackberry and a Raspberry. Judge Logan lived at Santa Cruz, California, and was at the time Judge of the Superior Court there.—R. H. PRICE-DENT, *Hallaton Manor, Market Harborough*.

Crocus Species.—No doubt, as "T. A. W." says, a profitable business must be the chief object of nurserymen; but they also, I feel sure, find pleasure in introducing beautiful plants. We need not compare them with the Dutch Crocus. They bloom at a different time, and their beauty is of a different kind. Those of your readers who have not tried it should grow *C. speciosus*. It sows itself freely and never encroaches. A self-sown colony with about 200 blooms of this lovely Crocus in a Rhododendron bed has been a delight. The soft purple flowers of *C. Sieberi* are charming. One complaint of our friends the nurserymen I do wish to make: How can they offer plants like the *Calystegias*, *Epilobium angustifolium* and *Linaria pallida* without a word of warning!—F. A. STURGE, *Coed Efa, near Wrexham*.



THE BLUE GUM TREE (EUCALYPTUS GLOBULUS) IN NEW ZEALAND.

have such tough skins and hard flesh that, notwithstanding their sweetness and flavour, they are not worth growing. While I am on the subject of fruit, why does anyone grow Pitmaston Duchess Pears except to please the eye? Bottled they are excellent, but otherwise they have all the faults Pears can have, the chief of which are acid flavour and tender skins, which discolour on the slightest provocation.—E. R. M., *Braziers Park, Ipsden, Oxon*.

A "Rest Cure" for Certain Plants.—In past years we have frequently noticed gaps in some of the pots of hybrid Freesias, and as often as we have

A Wild Daisy at the Cape of Good Hope.—I enclose a photograph of *Dimorphotheca pluvialis*, an African Daisy with a fine white flower about $1\frac{1}{2}$ inches across. Like most of the family it only opens after the sun is well up, and closes before sunset. This Daisy flowers in September and grows thickly, as the photograph shows. Seen from a little distance a bank of it resembles a drift of snow.—A. MENNIE, *Cape Town*.

Ononis cenisia.—I should be grateful to any of your readers who would tell me how to grow *Ononis cenisia* so as to prevent its perishing during the winter. I have found it growing luxuriantly on the outskirts of the Pine woods at Lanslebourg, where it must be under snow for many months at a time. All of its companions there that I have brought home are hardy and complaisant enough under cultivation. Among them are *Gentiana cruciata*, *Scutellaria alpina* and *Saponaria ocymoides*, all of them as hardy as a Dandelion, yet this charming little Rest-harrow has never yet survived the winter here, and I know is not too easy to keep alive at Bitton, one of the most successful of all English gardens in growing difficult plants. It is so pretty in October, trailing over grey Kentish-rag rocks, its long sprays freely set with the dainty pink and white blossoms, that I hope someone may suggest a way of preserving the old plants for another season, and so save me the necessity of starting the group again from seedlings.—E. A. BOWLES, *Waltham Cross*.

Nerines.—"Daffodils in the spring, Nerines in the autumn," is a phrase I recollect, used, I think, by Mr. Bennett-Poë when he and I were looking at one of Mr. Elwes' charming lots of Nerines, and I have always looked back on this remark as an excellent "tip" for those who (as I do) work on the Daffodil in the spring. Nerines give Daffodil hybridists something to do in the autumn. A very little glass is required. They can be flowered and seeded even in a quite unheated structure. I know this because Mr. Reuthe tells me that he grows his entire collection in cold frames, and the soil in the pots is frequently frozen hard through in the winter. At the present moment I have a taking little batch of these plants, commercial varieties and seedlings of my own raising, flowering in a house where up to now a little heat is only given at night, just to keep the temperature regular. Almost every day a fresh seedling is opening its first buds, and the interest of these novelties serves to while away the unexciting days of autumn. I am told that several prominent Daffodil men are now taking up the cultivation of the Nerine, including the Rev. Joseph Jacob, and in my dreams I sometimes visualise a Nerine Show, held on the lines of the great Spring Daffodil Show, with classes for seedlings. I wonder if it will ever become an accomplished fact.—ORNATUS.

A Small Garden Turned to Good Account.—The paragraph in THE GARDEN for October 16 about a profitable hospital garden at Exeter

encourages me to send you a short note upon a smaller venture at Cambridge. Last spring our local District Nurses' Home started a small vegetable garden, whose dimensions are only 27 yards by 16 yards. The expenditure upon this plot from March to September amounted to £3 14s. Of this sum £1 3s. was spent on seeds, and £2 2s. represented the wages bill, the sole labour employed being that of a man for occasional work. The produce, of which a careful account has been kept and valued at market prices, is estimated as follows: June, value 16s.; July, £1 10s.; August, £1 10s.; September, 10s.; vegetables in store, £4—total, £8 6s. Considerably over £4 has thus been saved in the course of a few months by this experiment in growing vegetables at home, and a small garden has been turned to good account. Well may the Board of Agriculture remind us that "every plant in your garden may save you money"—M. KENNY, *Westbye, Cambridge*.

buzzards and kestrels, are annually destroyed, all for the sake of the alien pheasant. If a pair of stoats or weasels would only make their home in my garden, I do not think I should be troubled much more with either the meadow mouse or the long-tailed field mouse, though the latter is nothing like such a pest here as the former.—I. BIGG-WITHER, *Birdwood, Wells, Somerset*.

—As you gave a little prominence to my experience with *Antirrhinums* (issue October 30, page 527) which I brought before the scientific committee of the Royal Horticultural Society, permit me to amplify the notice which appeared. The spikes of Yellow King (Barr) are very tall, 3 feet or more. It is the best deep yellow tall *Antirrhinum* on the market, and my firm has grown it specially for seed for the last two years. Our experience has been the same in 1914 and 1915. Some animal—we do not know what, but it was suggested by several members of the scien-



A SEPTEMBER SCENE AT THE CAPE OF GOOD HOPE. DIMORPHOTHECA PLUVIALIS IN THE GRASS.

Antirrhinums Eaten by Animals.—I was interested to see the note about the short-tailed field mice eating *Antirrhinums*. I have been greatly troubled by these mice in my rockery for several years past. Here they not only attack the seeds of the *Antirrhinum*, but gnaw through the stalk of the plant an inch or so above the ground level. Last autumn I planted out a few dozen in different parts of the rockery, and with one exception all were eaten down by these mice during the winter. This autumn I find they have commenced eating through the stems of *Ceratostigma plumbaginoides*. I have caught in this rockery alone twenty-three meadow mice (*Microtus agrestis*) since the beginning of the year. These mice seem to be much on the increase, for which our gamekeepers are chiefly responsible; and personally I think it is a great pity that so many of our mouse-eating birds, such as owls,

tific committee that it must be the field mouse—gnaws the stem through at distances varying from 3 inches to 12 inches above the ground, and after the stems tumble down flat the half-ripened pods of seed are eaten. Very clever, but quite annoying. The Yellow King variety is the only one that has been attacked, although between twenty and thirty sorts are grown.—W. CUTHBERTSON (of Dobbie and Co.).

FORTHCOMING EVENTS.

November 19.—Scottish Horticultural Association's Chrysanthemum Exhibition, Waverley Market, Edinburgh (two days).

December 8.—Perpetual-Flowering Carnation Society's Show, 12 noon to 5 p.m., Royal Horticultural Society's Hall, Vincent Square, Westminster.

THE NANKEEN LILY.

By SIR HERBERT MAXWELL, BART.

THIS beautiful plant has been endowed by various authorities with three different scientific titles, namely, *Lilium excelsum*, *L. isabellinum* and *L. testaceum*, meaning, respectively, the tall, the isabelline and the brick-coloured Lily. Now, whereas it is tall, and its flowers are of the soft tint known in French as "isabelle," and are in no sense brick-coloured,

The bulbs should be planted early, not later than the middle of September. They should be set just below the surface, in a sheltered position moderately exposed to the sun, and with a liberal admixture of lime in a soil composed of loam and leaf-mould. The result in the first year will probably be indifferent, perhaps disappointing. Careful watch should be kept for that fell fungus *Botrytis*, which is the chief enemy of this Lily, as it is of its reputed parents. If it makes its appearance, the foliage should be well and frequently sprayed, for it is worth much pains to get this Lily established in health. Once that is achieved, only the lapse of years is wanted to

C. iridiflorus in scientific language; for it is not found in Asia Minor as its correct, because earliest, specific name of *byzantinus* should imply, but grows in Hungary, and the later and therefore discarded specific *iridiflorus* is so singularly apt. If only it were better known in our gardens, we might call it in familiar English the Iris Crocus. It is because it is so seldom grown, and yet is so well deserving of a place in every rock garden, that I pen this note.

The foot of a slope facing north or north-west, on which *Ramondias*, *Primulas*, *Saxifrages* and such-like treasures create colour and interest in the spring and summer, is often bare and dull

in October, and hard to furnish with any late-flowering plant, that is not addicted to unmannerly habits of "scrouging" and smothering its neighbours. This precious Crocus is exactly fitted for such a position, as it loves a cooler and more shaded home than all others save *C. Scharo-janii*, the orange wonder of early August, and although its leaves in their spring heyday are rather wide, they are not numerous, nor does this species form closely crowded colonies.

It seems to me that it increases more by adventitious buds formed on the edge of the corms than in the orthodox Crocus habit of producing twins or triplets on the apex, so that by planting a dozen corms here and there in the open spaces between choice plants it is not likely the long grassy leaves will ever prove a nuisance. And the flowers in October! How can I sufficiently praise them. I have been admiring several small colonies of them to-day (October 27) and cannot say which I prefer—some extra large forms raised by the late Mr. Allen, famous for being the raiser of so many good *Snowdrops* and *Chionoscillas*; or the wild collected forms, not so large, but equally lovely in colour; or the

pure white one sent me some years back by Mr. Van Tubergen of Haarlem.

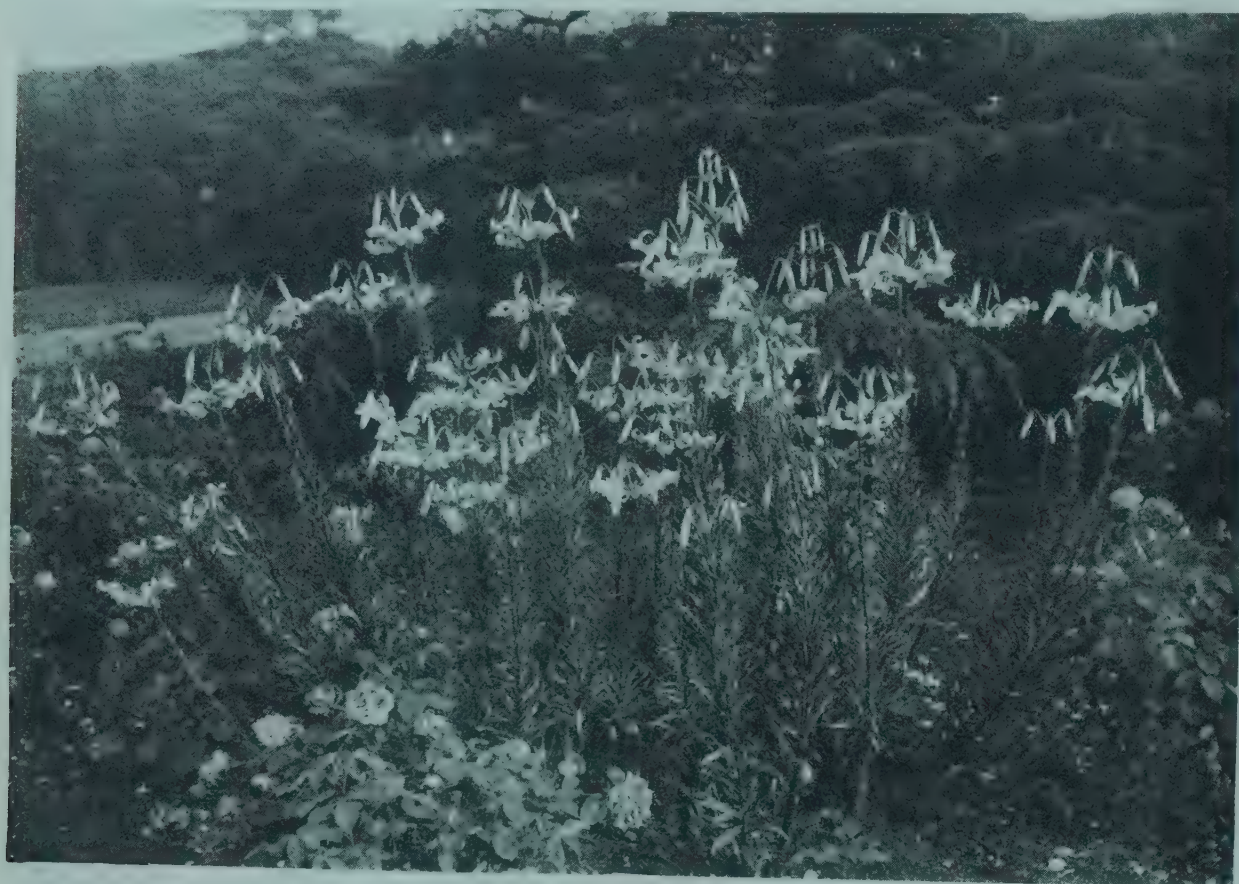
In sunlight the three large outer segments open out till they stand out nearly horizontally, showing the inner segments, which are less than a quarter as large, and often of a much paler shade. These inner segments stand up stiffly, and are so narrow and pointed that they are no bad imitation of the standards of some Iris.

THE CENTURY PLANT.

(*AGAVE AMERICANA*.)

The flowering of the Century Plant is always a matter of great interest, and we are much indebted to Sir Thomas S. Bazley, Kilmorie, Torquay, for so kindly sending the following note, together with a photograph, from which our illustration on page 555 has been prepared.

"The stem of the *Agave* (*A. americana*) now in flower here became evident last April, and soon looked like a gigantic *Asparagus* head. The growth was rapid to begin with (in one week it was 12 inches); it is now 26 feet high, both by measurement and calculation.



THE NANKEEN LILY (*LILIUM TESTACEUM*) IN THE CAMBRIDGE BOTANIC GARDEN.

it is to be regretted that in the "Kew Hand List" it is registered under the least appropriate of these names—*Lilium testaceum*. The popular English name for it, the Nankeen Lily, is happier, for nankeen is a dye approaching pretty closely to the delicate pale apricot, with just a hint of flesh colour, that distinguishes this Lily from all others.

Nobody knows its origin, for it has not been found in a wild state. It is said that it first appeared among a consignment of Asiatic bulbs more than sixty years ago, and it is supposed to be a natural hybrid between the Madonna Lily (*L. candidum*) and the scarlet *L. chalcedonicum*. If that be so, the alliance must be accounted among the most felicitous, for the offspring is one of the loveliest of the genus, of robust constitution, simple in its cultural requirements and, once established, sure to increase.

The usual stature of this Lily is from 4 feet to 5 feet; the stem is stiff enough to do without staking (no small merit), and is densely clothed throughout its length with linear leaves spirally set. The flowers are borne at the top of the stem in trusses of six to twelve blooms. The scarlet anthers form a charming contrast with the buff-coloured petals, which are gracefully reflexed.

produce a group like that in the Cambridge Botanic Garden, shown in the illustration herewith.

CROCUS BYZANTINUS.

By E. A. BOWLES, M.A., F.L.S.

THERE is always a great charm added to any flower's good points when one of them consists of a resemblance to some totally distinct plant. An Anemone-flowered Chrysanthemum, a Cactus Dahlia or an Orchid-flowered Canna appeals to our love of contrast and the unfamiliar at the first sight, and even when the race is well known to us we still enjoy any increase in their mimicry of forms not naturally their own. Those I have instanced are all florists' flowers of garden origin, but there is a species of Crocus that has such a likeness to a bloom of *Iris unguicularis* that it attracts all who see it, not only by its strange aspect as a Crocus, but also because it possesses so much of the beauty of the Iris. It is a great pity it cannot be called

"A popular delusion is that this species flowers once in a hundred years, but it only flowers once (in this instance from thirty to fifty years after planting), and then dies, unfortunately. The thick, succulent leaves of the plant here soon showed signs of the demand upon them for sap by the immense inflorescence; they are now flabby and emaciated, and will no doubt perish by the end of this year. The stem appears to remain, like a spar, for there is an old one here, woody but very light, said to have been produced in these gardens fifteen years ago.

"The flowers are peculiar, having anthers and stamens, but no distinguishable petals, giving a tasselled appearance. There are two similar plants, likewise flowering, about a mile distant."

LATE - FLOWERING TULIPS.

BY THE REV. JOSEPH JACOB.

THE Tulip is a flower well known, especially the more common kinds thereof, but there are many noble varieties, whose faces, as few are acquainted with, as with their excellent qualities." These are the opening words in the chapter dealing with Tulips in John Rea's "Flora" of 1665. I have chosen them for my text, for they are equally true in 1915. Two phrases particularly claim our attention—"noble varieties" and "excellent qualities." We will deal with them in the above order.

"Noble varieties."—Noble; Rea would have been hard put to it to find a more appropriate epithet wherewith to describe either a bed or a clump when these flowers are in full bloom. There is something in their bearing that we habitually associate with this word, whether we are looking at the sombre sumptuousness of a Louis XIV. or the bright brilliance of a Petrus Hondius. There is a majesty in the great tall flowers which few others have quite in the same way. Even in those whose stature is low, even in a flaming Golden Crown or in a glowing Glare of the Garden, or in soldier's red Marksman the same look is apparent.

Few are the varieties in which it is not found. Even then the pale retroflexa or the blushing Picotee have a Benjamin's portion of grace, and graceful carriage is next to noble bearing.

Varieties Whose Faces Few are Acquainted With.—Here follows a list of some of those of which the above heading is approximately true—garden Solomons, of course, excluded.

Dasystemon.—A dwarf, branched, low-growing plant of from 4 inches to 6 inches in height, with pure white flowers with large yellow centres and pointed petals, several of which are produced on each stem. No rockwork should be without a few, any more than it should be without a Saxifrage. It is a good doer and seeds freely. It

must be looked for in catalogues under the head of "species."

Louis XIV.—This to me is one of the Tulips of Tulips. I can imagine myself saving and scraping in order to possess a few bulbs as Mary Jones did for her Bible. Its rich plum purple and brown bronze is the high water of refined and rich colouring. Its large size is emblematic of contentment and good humour, for it can take things as they come and be happy anywhere. Why,

anything "from £500 to £1,000." *Tempora mutantur.*

Prince Hendrik.—I do not wish to frighten anyone, but this is a much more expensive variety than the last, or, to be accurate, one should have said *will be*, because as far as I know it is not to be found in any British list. When it is, all who appreciate refinement should buy a few bulbs, if the contents of their purses allow it. It is an exceedingly attractive rectified byblømen—a pure white of fine form and large size, with its pretty purple colouring entirely confined to a narrow beam running up the centre of each petal. When it flowers next spring I will have wintered and summered it, and I will then be able to say if what is stated about its behaviour is correct, viz., that its markings are constant. Holmes' King, which is figured on page 161 of Sweet's "Florist's Guide," Vol. II. (1829-1832), is its counterpart. It is the only one of the type pictured in that work, which probably means that then as now it was very uncommon.

Mrs. Kerrell.—A Cottage variety of medium height with somewhat long pointed flowers of a delightful warm pink, which has more than a suspicion of silvery amber in its composition. This, as Tulips go, is still expensive, but as it is a good increaser, the time will soon come when the price will be lower.

Marksman.—A bright scarlet Cottage Tulip which in its own shade of colour stands out alone. As the correspondence about colour charts (THE GARDEN, October 9, page 501) shows, we need more exactness in their definition. In the scarlet of Marksman there is a considerable amount of orange, which seemed to be more noticeable last spring than usual. The plant is of medium height, and the self-coloured flowers are of a nice size and not given to "breaking." I look upon this as one of our best Tulips.

Cassandra is another variety of medium height (that is, from 16 inches to 20 inches) of a most distinct tone of bright rose or possibly carmine rose. The flowers are self coloured and are remarkably lasting. This variety does not seem to be anything like so well known as its merits warrant. It is not expensive, being somewhere about 3s. or 3s. 6d. a dozen.

Valentin is quite one of the best of the Darwin class. It is a tall grower and has large, round flowers of a soft grey toned purple, which becomes considerably lighter with age. It is one of the first to bloom, following close upon the heels of what might so aptly be termed,

to use an old designation, the "medios" like Le Rêve and Couleur Cardinal. I have an idea that if anyone is looking out for a novel and pleasing combination, a bed of Valentin, bordered with the dark glossy Fra Angelico, would be effective; but as one learnt from the great Tulip exhibition at Vincent Square, one has to be most careful in fixing up matches and contrasts in colour schemes.

Eliphant, called also **Oliphant** (so I believe, at least, from the descriptions which seem to tally



A CENTURY PLANT, AGAVE AMERICANA, FLOWERING IN SIR THOMAS BAZLEY'S GARDEN AT TORQUAY.

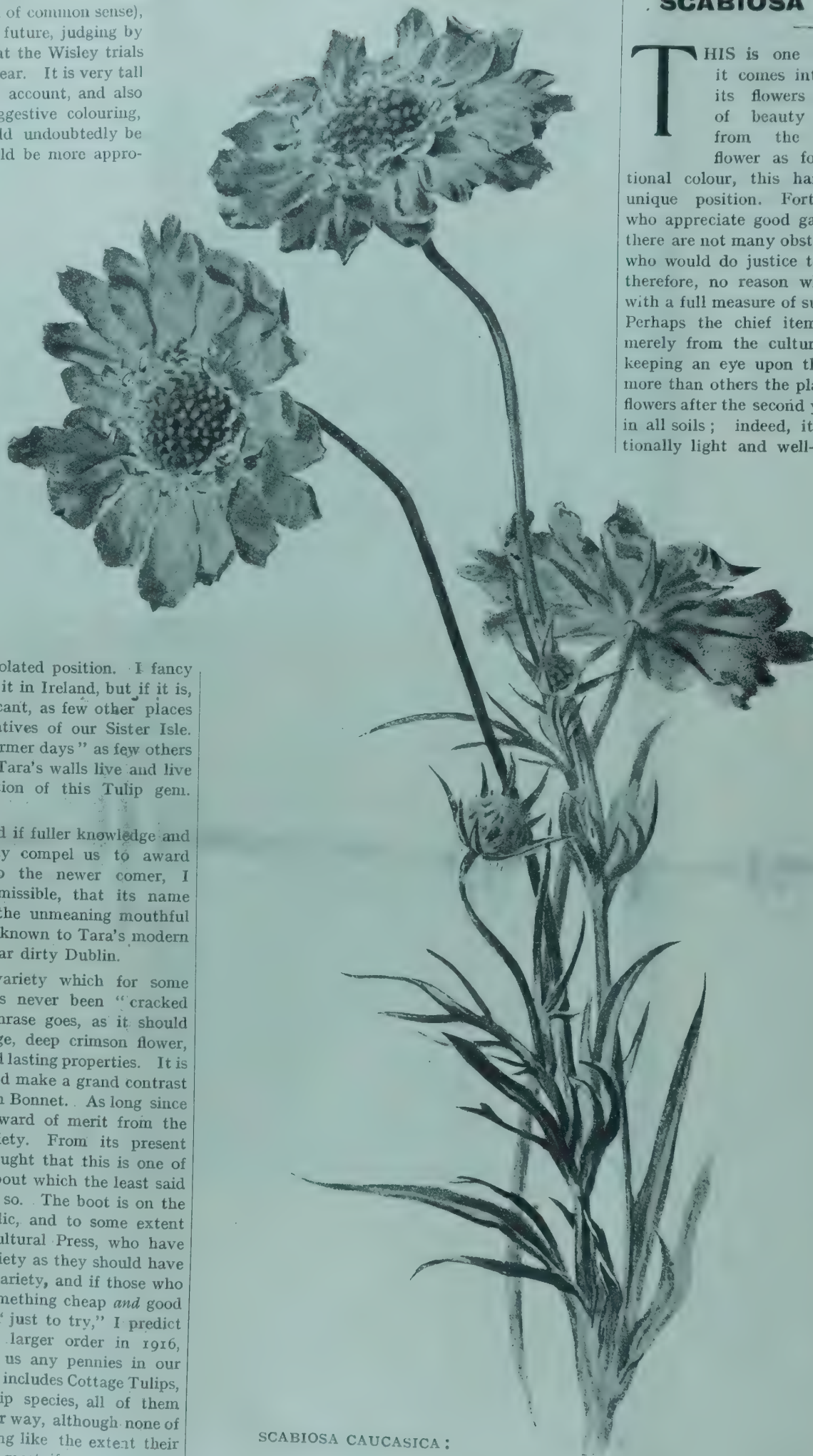
then, is it, being as it is an old variety, so high priced? It is as if it were hand made—a thing impossible to produce by any process of machinery. It was rather a shock to see it listed in one catalogue at the low (for it) price of half a guinea a dozen. In the majority it figures at a guinea or more. But let me say that there are very few varieties indeed that mean a pound or more when a dozen are bought. A small book of the year 1840, called "The Gardener's Manual," airily states that "a prime bed of Tulips" costs

with one another in the Dutch lists, aided also by a small modicum of common sense), is a plant with a great future, judging by appearances. I saw it at the Wisley trials for the first time this year. It is very tall and large, and on this account, and also because of its very suggestive colouring, I think the name should undoubtedly be Eliphant—no other could be more appropriate; but when doctors differ, what is a simple layman to say? Perhaps, should these lines meet the eye of Mr. Jan Roes, the Tulip walking dictionary of Holland, he would kindly favour *THE GARDEN* with a note about it.

Tara (very likely synonymous with William Goldring) is a fine representative of the deep shaded rich ruby reds. Sturdy in appearance and fairly tall in growth, it is a striking object in a bed in a mixed herbaceous border, or in a mass by itself in an isolated position. I fancy Tara is a name given to it in Ireland, but if it is, the choice is most significant, as few other places mean so much to the natives of our Sister Isle. It recalls "the pride of former days" as few others do, and Tara's halls and Tara's walls live and live again in the contemplation of this Tulip gem. It has a serious rival in

The International, and if fuller knowledge and more intimate familiarity compel us to award the palm of contest to the newer comer, I could wish, were it permissible, that its name should be changed from the unmeaning mouthful by which it is at present known to Tara's modern successor, "Dublin"—dear dirty Dublin.

Millet is a Darwin variety which for some unaccountable reason has never been "cracked up," as the colloquial phrase goes, as it should have been. It has a large, deep crimson flower, very shapely and with good lasting properties. It is late in blooming and would make a grand contrast with the Cottage, Leghorn Bonnet. As long since as 1906 it received an award of merit from the Royal Horticultural Society. From its present obscurity it might be thought that this is one of those marks of honour about which the least said the better. But it is not so. The boot is on the other leg. It is the public, and to some extent the writers in the horticultural Press, who have never appreciated this variety as they should have done. It is a low-priced variety, and if those who are on the look-out for something cheap and good will buy a few this year "just to try," I predict the majority will give a larger order in 1916, should the war have left us any pennies in our purses. The foregoing list includes Cottage Tulips, Darwin Tulips and a Tulip species, all of them extremely beautiful in their way, although none of them is known to anything like the extent their merits warrant. However, most, if not all, of them are appreciated by the *real* Tulip enthusiast.



SCABIOSA CAUCASICA:

THE CAUCASIAN PINCUSHION FLOWER.

SCABIOSA CAUCASICA.

THIS is one of the finest perennials; it comes into bloom at a time when its flowers are welcome. In point of beauty and utility, as much from the distinct form of the flower as for its refined and exceptional colour, this handsome plant occupies a unique position. Fortunately, too, for those who appreciate good gardening and good flowers, there are not many obstacles in the path for those who would do justice to this plant, and there is, therefore, no reason why it may not be grown with a full measure of success by all who so desire. Perhaps the chief item—looking at the matter merely from the cultural standpoint—is that of keeping an eye upon the stock, as in some soils more than others the plant begins to yield smaller flowers after the second year. This is not the case in all soils; indeed, it is not so in the exceptionally light and well-drained soils of Hampton

and district. Yet in others I know there is a decided tendency in the direction I have stated. By far the best results are obtained, where it is possible to do so, by raising seedlings for one's self, and putting the small plants out in rich or good land at quite an early date—that is to say, sow a sprinkling of seed in early autumn as soon as fully ripe, and grow the seedling plants quickly as well as liberally from the start. Such seedlings will be best grown in a cold, freely ventilated frame for the winter that follows, and if any are large enough they may be potted singly. Then by the end of February the largest should be in the open ground, for it is one of the mistakes of this class of culture to keep small seedling plants long confined in small pots and a much smaller portion of a almost always too dry soil.

Such conditions—and they more frequently exist than many surmise, to the detriment of future progress—should be minimised as much as possible as among the intolerable evils to successful plant culture, and equally annoying and

disheartening to the amateur who longs to do his best, and yet is struggling hard against some unseen foe. Often the seedling that is starved and becomes hide-bound in infancy is not a success, and the grower of it wonders why, seeing he has faithfully followed the instructions laid down for its general cultivation. In justice to many hardy plant specialists it must be stated these are doing their best to help by adopting this very simple routine in growing many plants for sale; but then, the nurseryman has to cater for a variety of customers, and those who come late, often very late, do not obtain the fine plants from the ground, but a much smaller one in a pot. That plant may have been in that pot for one month or a dozen, which makes all the difference when it is eventually planted out. It is those and only those who take care, whether it be seedling or rooted cutting, to plant always in the youthful days that know and appreciate the value of such timely work. I make a point of impressing its necessity here because this Scabiosa is one of those things most decidedly benefited by such timely assistance. At the same time, quite good-sized plants of this may be transplanted if need be. Quite naturally, the plant is better without the shift, though if it be done quite early in the spring, the loss will be small; and what is true

of the beautiful mauve or lavender shaded kind is equally true of the white kind, which for all purposes is a most valuable plant. Some have complained that the white is not pure, which is certainly true.

Those who have been unsuccessful in raising seedlings of either white or blue kinds should remember that great value attaches to quite ripe and fresh seeds, the latter, when allowed to remain on the plant to the "shedding" stage, being generally most reliable in growth. The plant, too, is much assisted by slight warmth when raising the seedlings. Seed of this may soon lose some of its power if kept in a very dry and much heated room. The blue Scabiosa, when well grown, will attain nearly 3 feet in height, the heads of bloom appearing on long footstalks from amid handsome, well-marked leafage, the white variety being a counterpart save in the matter of colour. The former came into cultivation over a century ago, viz., 1803, and, besides its white form, there have been described one or two varieties which for all practical purposes may frequently be taken from any large bed of seedling plants. The variety *magnifica*, however, is of outstanding merit. The flowers are deep lavender blue and delightfully frilled at the margin. This variety received an Award of Merit from the Royal Horticultural Society when first shown by Messrs. Cocker of Aberdeen about two years ago.

PLANTING HARDY RHODODENDRONS.

FEW trees and shrubs, if any, are more exacting in their requirements than Rhododendrons. There are certain conditions of the soil of which they are most impatient. For instance, they will not tolerate a sour soil or one containing an excess of lime, neither will they succeed in a soil that is liable to become too dry on the surface. As we are now on the threshold of the planting season, it is well that we should give due consideration to the likes and dislikes of these, the most beautiful of all hardy evergreen shrubs. Rhododendrons love moisture and shade. They like moisture overhead as well as at the roots. They are shallow rooting, and if the surface of the soil becomes parched it may be fatal to them, while the spade and hoe should not be used near to their roots.

In places where Birch trees, Pines and Heather abound, Rhododendrons are almost sure to thrive. At Bignor Park they grow and flower beautifully under the partial shade of Cedars and backed with Evergreen Oaks. *Rhododendron ponticum* is often grown as a covert shrub. It makes a splendid



RHODODENDRONS UNDER THE PARTIAL SHADE OF EVERGREEN OAKS AND CEDARS AT BIGNOR PARK.

undergrowth to Birch, Spanish Chestnut and conifers, and is one of the few shrubs not attacked by hares. In dense shade, however, the Rhododendron does not flower at all freely.

No one has yet been able to explain why Rhododendrons show a marked dislike to the presence of lime, although the subject has been widely discussed. The writer is acquainted with a garden on the slopes of the chalk downs of Berkshire, where repeated attempts have been made to grow Rhododendrons. Before planting, large beds were excavated and filled with peat and Bagshot loam. For the first two years the Rhododendrons grew satisfactorily, but later, when the beds were doubtless permeated by the surrounding chalk, the plants eked out a meagre existence and were afterwards grubbed up and burnt. Not profiting by experience, the experiment was renewed a few years later, with the same disastrous results. Now, to excavate beds in unsuitable soil is an altogether wrong procedure, for sooner or later the injurious element is certain to reach the roots of the plants. A far better plan, if Rhododendrons are to be grown on unsuitable soils, is to raise the beds to form a bank, making the outside secure by forming walls of turves.

Rhododendrons grow quite well in a fibrous loam, even without an addition of peat. Clayey soils are improved by the addition of peat and leaf-soil. It is a mistake to make up a soil with too much light material, such as sand and leaf-mould, which would soon become dust dry in a spell of hot weather. Leaves form a natural surface mulch and should always be present, while the addition of cow-manure is beneficial to established plants.

October and November are two good months for planting Rhododendrons, but they may be planted any time up to the end of April, providing the weather is open, for they must not be lifted on the approach of frost. The following varieties are quite hardy; they should be planted about 6 feet apart, to save replanting a year or two later on:

Pink.—Pink Pearl, Kate Waterer, Alice, Mrs. E. C. Stirling, Gomer Waterer and Fair Rosamund.

Red.—Doncaster, Charles Bagley, John Waterer and James Marshall Brooks.

White.—Baroness H. Schröder and Mrs. J. Waterer.

Purple.—Everestianum, Othello, and fastuosum (of which there is a double form, flore plenum).

Bicolour.—Sappho, Helen Waterer and Marchioness of Lansdowne.

Rhododendrons should be planted to form bold, natural groups on banks, in glens, or on the outskirts of the woodland. To place them in small formal beds is to lose half the charm of these noble shrubs.

C. Q.

THE ITALIAN STARWORTS.

The flowers of the Italian Starworts are larger than most Michaelmas Daisies and stand out very conspicuous particularly when associated with Japanese Anemones or similar subjects, either when growing or as cut flowers. Being only about 2 feet high they are very suitable for small gardens where space will not allow the taller Michaelmas Daisies to be grown, while bold masses in larger gardens are very effective. Bessarabicus, King George, latifolius Riverslea, Perle-Rose, Perry's Favourite and Stella, are a few of the best varieties.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Early Peaches and Nectarines.—If a suitable house is available for growing pot trees, this method should be adopted for producing the earliest crops. If the wood is perfectly matured, the trees may be pruned, cleaned, and placed in the house at once. If the young growth was regulated and stopped in the growing season, little pruning will be required now beyond thinning out the weak wood and shortening that which is extra strong. For the first two or three weeks fire-heat must not be used, but every advantage must be taken of the little sun-heat which is obtainable during the winter months. Lightly spray the trees with rain-water on fine days, and sprinkle the floors and paths as often as necessary. Water the roots with extreme care till growth is active; but when water is necessary, give sufficient to thoroughly soak the soil.

Late and Midseason Trees.—The work of pruning, cleaning and training Peach trees under glass should, if possible, be completed before the turn of the year. Any trees which have produced unsatisfactory crops should be examined at the roots and any defects made good. In pruning old trees, first examine the old branches and cut out any which are becoming bare of fruiting wood. Before training the trees, thoroughly wash the house with strong soapy water; then treat the trees in the same manner, being careful not to damage the buds. When the trees have been trained, remove 2 inches or 3 inches of the surface soil from the borders and replace it with a mixture of loam, wood-ashes and crushed bones. See that the trees do not suffer for want of moisture at the roots, especially where the latter are confined to inside borders. In order to give the trees a thorough rest, the ventilators should be thrown open as much as possible.

Plants Under Glass.

Luculia gratissima.—This beautiful greenhouse shrub should be grown in every garden where a suitable house is available. A cool greenhouse is the most suitable structure in which to grow it, and if a restricted border can be provided to accommodate its roots, so much the better. After flowering, which is usually by the end of the present month, the old wood must be cut hard back. The plants should then be induced to rest by keeping the roots on the dry side and the house as cool as possible.

Early Flowering Bulbs.—Roman Hyacinths and the early white Narcissus promise to flower unusually early this season. They must be kept in cold frames unless they are required to flower before Christmas. Bulbs which have been taken from the ash-bed must be protected from rats and mice. These pests are very destructive if allowed to go unchecked.

The Flower Garden.

Perpetual-Flowering Carnations.—These Carnations are fast becoming popular for bedding. Plants which were rooted for this purpose a few weeks ago must be kept near the glass, so that they may be as sturdy as possible. No effort must be made to force growth till the turn of the year. When the pots are full of roots, shift them into 5-inch pots.

Perennial Asters.—The mixed border would be dull indeed during late autumn without the Michaelmas Daisy, and there are so many beautiful varieties now that the old forms are fast dying out. To obtain the full beauty of these plants they should be dug up and replanted every season, selecting only the most promising pieces for re-setting. Apart from including them in the mixed border, there are many other places where they may be planted with equally good effect.

Marguerite Mrs. F. Sander.—This has proved most useful in the flower garden. There is no white flowering subject that I know to equal it for its long season of flowering, and it seems to thrive in all kinds of weather. It is easily propagated from cuttings, which may be inserted at any time when available. To obtain suitable growths for cuttings, a few old plants should be potted up and partially cut back. Place them in

a warm, moist house, where they will quickly make healthy growth.

The Hardy Fruit Garden.

Gooseberries.—The cuttings which were struck last year may now be placed in their permanent quarters. The ground should be well prepared by trenching and manuring. Should the soil be poor, a quantity of chopped loam should be placed round each plant. The pruning of Gooseberries may be done now; in fact, the pruning of all kinds of fruit trees should be forwarded as much as possible. Old Gooseberry bushes must be well thinned out; and where there is a young shoot to replace an old branch, this should be left, for it is on the young growths that the finest fruits are obtained. The system of growing Gooseberries on a wire trellis is excellent, as the very best dessert fruits are obtained from this method. The trees must, of course, be trained as cordons. If necessary, cuttings may be inserted now for propagating young trees.

The Kitchen Garden.

Spinach.—The strongest leaves must be kept picked off the plants to encourage fresh growth. Keep the plants free from decaying leaves and weeds, and to further encourage healthy growth, hoe between the rows when the ground is in a suitable condition.

Jerusalem Artichokes.—Cut down the stems of these plants and burn them. Dig up a portion of the crop for present use and store in sand in a cool shed.

Peas.—If Peas are required at the earliest possible date, a batch may be grown in pots or boxes. The seed may be sown towards the end of this month in 8-inch or 10-inch pots. A compost of loam, leaf-soil and manure from an old spent Mushroom-bed will be suitable. The seedlings must be well thinned out when through the soil, and be grown as sturdily as possible.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Asparagus.—As soon as the foliage is ripe, the growths must be cut over, afterwards clearing the weeds from the beds. The small pathways between the beds should be hoed and all rubbish raked off. This will leave the whole tidy, as it should be for the winter season.

Cabbage.—Seize any favourable opportunity, when the condition of the ground will allow, to hoe over the spring Cabbage plot. At the same time make secure any of the larger plants which may have become loosened by the wind.

Seakale.—If this has been subjected to a severe frost, there will not be the same difficulty in forcing it; but when the weather has been mild, progress will be very slow. It is therefore better to wait until there has been frost. The Mushroom-house is the most convenient place to grow it, but anywhere in the dark where there are heat and moisture it will succeed.

Parsley.—The older leaves should still be freely removed for use when required, to allow the young leaves to develop. Where plants are lifted into frames for the winter supply, sufficient space should be left between the plants to prevent damping of the foliage, which is likely to happen when there is overcrowding.

The Hardy Fruit Garden.

Root-Pruning.—When circumstances allow, this operation should be done at this season. Many unfruitful trees can be brought into a bearing condition by a timely pruning of the roots. There is no hard and fast rule of the extent to be pruned, as the size and condition of each tree may require different treatment. In many cases it may be offending taproots which require removal. The improvement in fruiting will generally be noticeable in the second season following. When exposing the roots for this treatment, the opportunity should be taken to add new soil; this should consist of good loam and lime rubble.

Fruit Under Glass.

Pot Vines.—For supplying very early fruit in May, it is essential to have stout as well as thoroughly ripened canes. A mild bottom-heat is necessary; this can be obtained either with a gentle hot-bed made up of leaves mixed with stable litter, or by hot-water pipes arranged under the bed or stage where they are to be grown. Black Hamburg is the most reliable kind, and it also matures before any of the other better-class varieties. After the Vines have been got into position the forcing must commence gradually, a temperature of 50° being sufficient at night; it can be advanced to 55° and 60° in the daytime. In bright weather the Vines may be syringed two or three times a day, but less frequently in cold, dull weather.

The Flower Garden.

Hollyhocks.—In wet and cold districts these plants are very liable to be lost during a spell of

forward plants should be pinched out. Where the stock of any particular variety is limited, this can be used as cuttings, as they root readily even at this season.

Bulbs.—Any planting of bulbs which has been unavoidably delayed should be completed as quickly as possible before the bulbs lose any more of their vitality.

Plants Under Glass.

Arums.—Since the early batch of plants is now in flower, some encouragement should be given to the succeeding growths to produce large spathes. This is only brought about by good treatment. Liquid manure and fertilisers should be used in alternate applications of water, as the plants are gross feeders. Green fly is frequently troublesome, even in the depth of winter, and, if not got rid of in time, many flowers will be spoilt. A fumigation should be given without delay whenever any trace of this pest has been discovered.

on the foliage. Some growths may require tying, but pruning, where necessary, is best left alone until the flowering season is over.

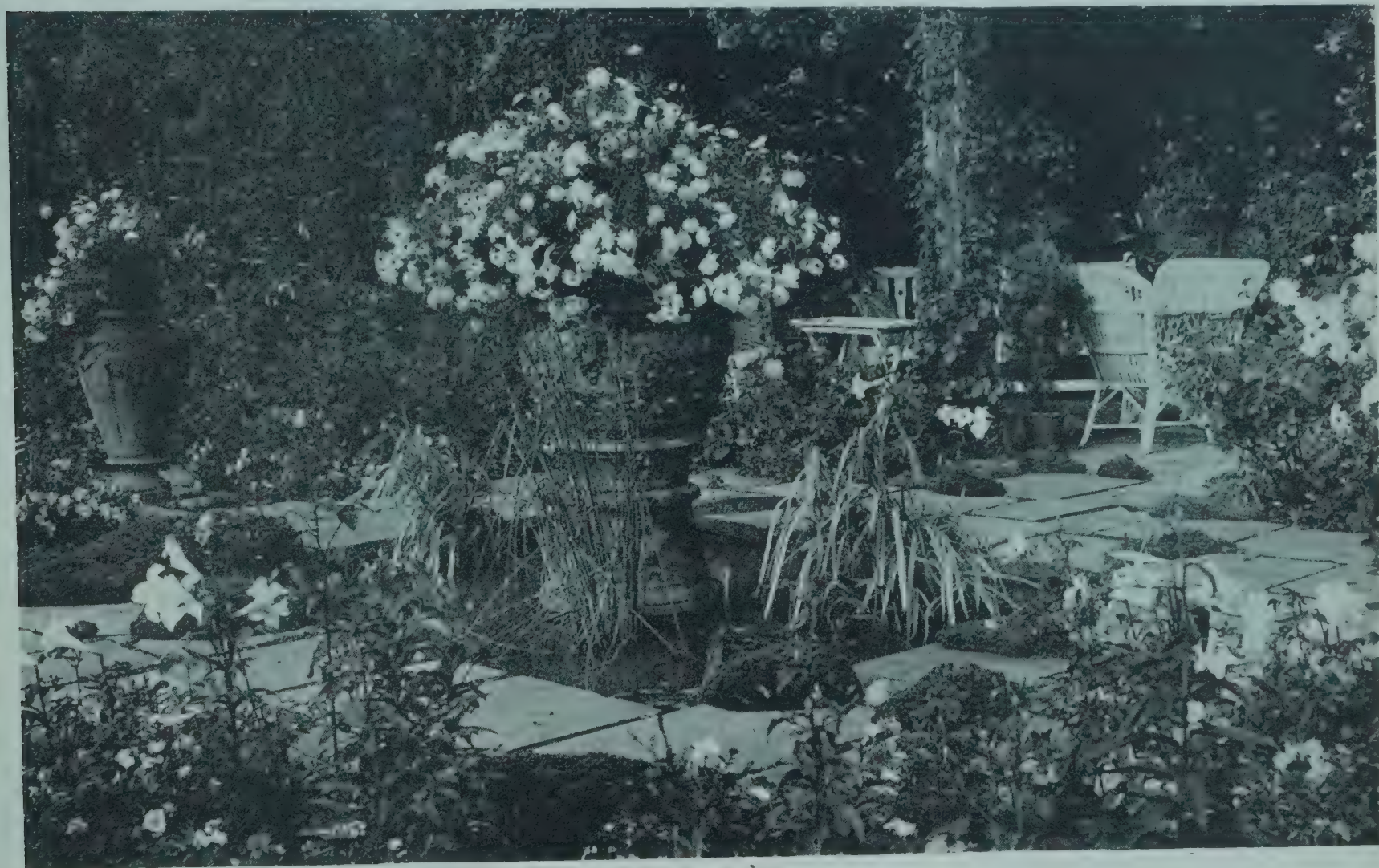
JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

THE SUNK GARDEN AT REGAL LODGE, KENTFORD.

ON this page we illustrate the beautiful sunk garden as seen from the loggia in Lady de Bathe's garden at Regal Lodge, Kentford. It has been designed in perfect taste, and laid out with consummate skill. It is, in fact, an artist's corner,



LADY DE BATHE'S SUNK GARDEN AT REGAL LODGE, KENTFORD.

severe frost. Either leaves or straw can be used to protect them, but they should not entirely cover the plants, merely surrounding the base of the stems, which should now be shortened if this has not already been done.

Rock Garden.—Many subjects in this quarter will require some sort of protection from frost. The most convenient to use are ashes for the small subjects, as these not only protect from frost, but act as a preventive against raids by slugs.

Bedding Plants which are wintering in frames should be carefully attended to daily as regards ventilation and, when necessary, water. This in most cases will be seldom required, there being so little evaporation at this time of the year. No risks should be run by neglecting to cover up the plants when frost is possible.

Pentstemons.—Cuttings which were inserted in September have now grown 3 inches or 4 inches in height. In order to get more bushy plants for setting out in spring, the points of all the most

Resting Plants.—Such tuberous-rooted plants as Begonias, Caladiums, Achimenes and Gloxinias having now died down, the pots can be laid on their sides under a greenhouse stage where the temperature is not likely to drop much below 50°.

Solanum Capsicastrum.—As the berries commence to colour, the plants should be kept in a slightly warmer atmosphere than that in which they have been previously growing. Being very subject to attacks from insect pests, these plants should be fumigated fairly frequently.

Bouvardias.—These plants may now be kept in a slightly higher temperature if they are required to flower early. The atmosphere should not be allowed to get too dry, or red spider will become troublesome, Bouvardias being very subject to its attack.

Camellias.—Until the flowers commence opening, the syringe should be used freely to help to keep down the various forms of filth which accumulate

perfect in point of colour and grouping, blending unconsciously into the outer garden without undue formality or any leaning towards overcrowding. In the centre is a Lily pool, where Nymphæas thrive and the stippled stems of Scirpus lacustris zebrina are reflected in the placid water with charming effect. It is a paved garden, and little tufts of Sea Pinks, Saxifrages, Thyme and Wall Campanula grow between the large paving-stones. Beds of Roses and Lilies edged with that lovely mauve Viola Maggie Mott lend pleasing colour to this enchanted garden. Large earthenware vases filled with double white Marguerites occupy a prominent position, while in the background are standard Heliotropes, large Orange trees in tubs, and pillars draped with Roses.

THE FOUR BEST DESSERT APPLES.

MANY of the failures and disappointments among amateur fruit-growers can be traced to a poor selection of varieties in the first place. Too much importance cannot be attached to a careful and judicious selection of the fruits for a small garden, or much subsequent care and labour will simply cause disappointment. There can be nothing more annoying to the owner of a small garden than the discovery that the Apple or Pear or Plum trees upon which he has lavished so much attention and spent a certain amount of money are of inferior or unsuitable varieties. It is always rather an unsatisfactory matter to recommend a few varieties, say, of Apples, and to say that they are the best, for some varieties succeed far better in certain localities than in others, owing to some conditions of soil or climate, or both, that happen to suit

6 inches deep and have a diameter of at least 4 feet. A hole of this size allows of the roots being spread out properly, and still gives some broken ground, into which they root more easily than in the hard, undisturbed soil. Although the hole is made 2½ feet deep, it does not follow that the tree must be put in at that depth. An excellent guide as to the depth to plant is given by the soil mark on the stem; this shows clearly how deep the tree has been previously, and it should be planted at about the same depth or a little higher so as to allow for the settling of the tree. To ensure this being done, sufficient fresh turfy soil must be placed in the bottom of the hole to bring the tree to its proper level. It is important that the soil be trodden firm, although it must not be made hard. Then, having the roots carefully spread out (preferably in two separate layers if they are numerous, rather than putting all on the same level), they are covered with fresh turfy soil, which is made firm as the work of filling in proceeds. It is best to place fresh soil immediately about the roots; then the remaining space can be filled in with the soil taken out.

St. Edmund's Pippin is an Apple that is not so well known as the others named, yet it has many good points. In the first place, it is an early Apple, for it is ripe in October, and it is of far better flavour than many early Apples. Russet Apples are great favourites with many, their rich Russet flavour being both distinct and agreeable. St. Edmund's Pippin must be classed as one of the best Russets. It is not such an attractive Apple as some, being of medium size and of dull yellow russet colouring. St. Edmund's Pippin fruits freely as a bush tree on the dwarfing stock, and may be confidently recommended for dessert during October.

Cox's Orange Pippin.—There is no Apple in cultivation that is so richly flavoured as this, and it is without exception a general favourite. It thrives well as a bush tree on the Paradise stock, and succeeds in all except cold soils. Cox's Orange Pippin is generally at its best towards the end of November and until Christmas. It may be kept for some time after Christmas in a well-constructed fruit-room, but as a rule the flavour deteriorates in the new year. It is essentially an

Apple to eat before or about Christmas-time. In the extreme North of England and in Scotland this delicious Apple needs the shelter of a wall to be had at its best, but it is well worth any special attention it may have in this way.

Allington Pippin.—This is an Apple that has become extremely popular in



APPLE KING OF THE PIPPINS.



APPLE ALLINGTON PIPPIN.

certain sorts. It is, then, in no dogmatic spirit that the four varieties of dessert Apples shown in the accompanying illustrations are recommended as the best. Probably for the majority of amateur gardeners it would be difficult to find four that would prove more satisfactory, but, before planting, everyone should take the precaution to find out from some neighbouring garden whether or not any of the Apples mentioned here are known to be unsuitable to the district. If all are found to be suitable, then I venture to give these four as the best. However, I would like to say that if any other good variety does especially well in the neighbourhood—and this is sometimes the case—then I would suggest that it be added to the collection. After a careful selection of varieties, too much importance can hardly be placed on the

Ground Preparation and Planting. Fruit trees are planted not for a year or two, but perhaps for generations, and it is evident that time spent in giving them a good start is time spent unusually well. A large hole should be dug out for each tree; it should be made not less than 2 feet

Unless the planting is firmly done, the trees will never be seen at their best.

Time to Plant.—A good general guide to the time of planting fruit trees is to be found in the fall of the leaf. The best time is generally admitted to be when most of the leaves have fallen, but while a few still remain on the tree. The trees are in this condition, as a rule, in November, and this is the month for fruit tree planting. It is by far the best plan to dig the hole a few weeks before and fill it up again. The soil will have settled by planting-time, and, so long as it has been dug previously, the actual hole to receive the tree need be no larger than necessary. There must still be room for the roots to be spread out horizontally. All the varieties of Apple now mentioned are to be grown as bush trees on the broad-leaved Paradise or dwarfing stock. It is known as the dwarfing stock because its characteristic is to make a mass of fibrous roots not far from the surface, and thus bring the trees into good and regular bearing within a very few years. All nurserymen grow bush Apple trees on this stock very largely, and there is no difficulty whatever in obtaining them.

a comparatively short space of time so far as the age of Apples is concerned, for it has only been on the market since 1896, whereas Apple Cox's Orange Pippin was introduced forty-two years earlier. It may be said to rank next to Apple Cox's Orange Pippin in sweetness and richness of flavour. It is a larger fruit than the latter and more beautiful to look upon. It is one of the very best Apples for a small garden, because not only is it a first-rate sort so far as dessert qualities are concerned, but it begins to bear heavy crops of fruit when the trees are quite small; in fact, I know of no Apple that will give such a good crop of fruit from young trees as Allington Pippin does. On looking through a large collection of fruit trees about three years old some weeks ago, this characteristic of Allington Pippin was most marked. This is really an excellent amateur's fruit on the Paradise stock. It is in season longer than Cox's Orange Pippin, for while, as I have said, the latter is at its best not later than Christmas, Allington Pippin is quite good from November to February.



APPLE ST. EDMUND'S PIPPIN.

King of the Pippins is an Apple that can claim to be a most satisfactory one, since it rarely or never fails to give a good crop. The fruits are handsome, and command a good price in the market. The flesh of this variety is somewhat soft and the flavour mellow rather than sweet, and for these reasons the fruits offer a most agreeable change from sweeter Apples, while, of course, many actually prefer an Apple of this kind. It should be obtained as a bush on the Paradise stock, and then even on cold soil will bear regularly and well. The fruits are in season from October to Christmas, or even later. I have not thought it worth while to mention any very late Apples, for as a rule amateurs with small gardens have no convenience for storing them. Thus the four I have mentioned would give a supply of dessert fruits throughout October, November, December and January. I am sure that all four would be found to give full satisfaction. He would indeed be a man whose taste was difficult to please if such Apples as these, their season extending over four months, did not meet with his approval. W.

BLACK SPOT ON ROSES.

REFERRING to the recent correspondence on this subject, in my opinion this terrible disease is increasing rapidly among the Rose plantations in this country, owing to the fact that amateurs and Rose growers generally fail to see the necessity of taking measures to stamp out the disease on its first appearance. Mr. Mawley's method of removing and immediately burning each infected leaf on the first appearance is a good preventive if carried out thoroughly in every garden; but how few will take the trouble. It is, therefore, up to the enthusiast to take time by the forelock and prevent the appearance of this and other fungoids.

Nearly all fungoids have two stages, the active and the resting, and it is necessary to attack them at both periods. After much experimenting I have found that sulphate of iron is the most fatal chemical to use against the resting spores that remain on the branches and soil surface throughout the autumn and winter months. This should be applied in November and again in March in liquid form, dissolving 1lb. of the chemical

in 5 gallons of water free from lime. (If the water contains lime, 4 gallons will be sufficient.) The surface of the beds and the plants should first of all be cleared of mulchings, dead leaves, or anything else likely to harbour spores on the under surface, and therefore likely to escape contact with the iron solution. Watered through a fine-rosed can, 5 gallons, should roughly, cover 25 square yards. Against active spores I have found copper compounds only to be efficacious when applied monthly between March and October; but here the difficulty comes in of what copper compounds to use and how to cause the copper to adhere sufficiently long to penetrate into the

inner tissues of the foliage and stems without at the same time injuring or disfiguring them. I am both anxious and willing to send free samples and full directions to every interested grower of Roses who cares to write me fully on the subject.

Dunbryan, Formby, Lancs.

J. LYTLE.

WITH reference to the correspondence regarding black spot on Roses, I find that Grüss an Teplitz and La France '89 are chiefly attacked. I have not yet noticed it on Juliet or Soleil d'Or.

Forest Hill, S.E.

H. G. B.

WITH reference to your correspondence about black spot on Roses, perhaps my experience may be of interest. I never saw black spot until three or four years ago, and then it made its appearance on my Penzance Briars and quickly spread to my dwarf Roses until nearly all my Rose garden was leafless. I found sulphide of potassium, $\frac{1}{2}$ oz. to 2½ gallons of lukewarm water, a good spray to protect the second growth, but nothing has really helped my Roses so effectually as constant spraying with formaldehyde, one tablespoonful to a gallon of water. One year I was able to do this every week, and three times in winter I sprayed with a double strength solution (in the morning on a still, mild day), with very good results. I have never found anything to cure black spot, but constant spraying with formaldehyde and the burning, as much as possible, of all infected leaves will keep it in check.

The Penzance Briars are always very badly affected with me, and the Lyon Rose I simply cannot grow. I have tried over and over again and had magnificent blooms for a year or two, then black spot claims its victim and the plant dies.

MABEL A. GORDON DILL.

Lis-na-dill, Woodbury, Devon.

ANSWERS

TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWER.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

YEW HEDGE AND GALVANISED IRON (H. L. F.).—We have never tried the iron sheets with a view to restricting the rooting area, and have always found that a trench opened once in two years at 3 feet from the hedge to about 3 feet deep answered every purpose. We should not, however, hesitate to try it in circumstances where the trench was either impossible or inconvenient, and if you adopt it, we should advise 3 feet long sheets sunk in rather more than their full depth vertically at a few feet, though not less than 3 feet, from the hedge. If the latter is old and of considerable spread, it may be necessary to keep further away. The iron sheets are not likely to injure the hedge in any way. A good strong gauge of iron should be selected.

CHRYSANTHEMUM UNSATISFACTORY (Enquirer).—The leaves and stems of the variety Niveus which you have sent are not affected by rust, but by yellow thrips, which have eaten the stems and the under sides of the leaves very much. The pests suck the juices of the plant; then the skin dries and turns to a brown colour, forming a rough callus resembling the rust. Lay the plant on a mat and syringe it forcibly with a soapy solution, half an ounce of soft soap dissolved in a gallon of water.

ROSE GARDEN.

BLACK SPOT ON ROSES (Amateur).—We are very glad to hear that your Roses have been so successful. You are doing very wisely in collecting the fallen foliage and burning it, and it would be well to continue doing this and to remove and replace with fresh the top soil of your bed. The bushes should be sprayed in May next with Bordeaux mixture as a means of prevention, and again at the first onset of the trouble if it should reappear. If it occurs a little late in the season it does not weaken the bushes greatly; but when it occurs early and persists through the summer it has a very weakening effect.

MOVING ROSES AND HERBACEOUS PLANTS (F. Whiteway).—Unless your move next May is a local one, we should hardly advise your undertaking to move the plants at all, since a hundred Roses are so easily replaced that at the time of year named the plants would suffer considerably. If, however, you are bent on taking



APPLE COX'S ORANGE PIPPIN.

them with you, the safest plan for the Roses would be to presently lift them all and, having shortened the growth, heel them in again. Then quite late in April prune them hard back, and so prepare them for the move. The herbaceous plants could be moved by lifting now, detaching the most youthful and vigorous pieces from the outside of each clump, heeling them in the soil again, and cutting back in March. In this way you might save them. At the same time, you must be prepared for an all-round weakening effect and little, if any, flower next year. To lift, box and plunge the plants would not only entail considerable expense now, but would also mean additional expense in May, and, unless the collection was of considerable value, it would not be worth while.

FRUIT GARDEN.

PEAR KING EDWARD DECAYING BEFORE IT IS RIPE (R. R., *Godalming*).—The one sound fruit sent is ripe and excellent. The others are practically putrid pulp. The only likely cause which occurs to us of this untimely decay is that the fruit has been damaged by rough handling in gathering, or allowed to fall from the trees, and thus become bruised, and in consequence decomposition has set in. Pears cannot be handled too carefully. The slightest over-pressure of the fingers will cause decay to set in.

GRAPE MADRESFIELD COURT CRACKING (*Constant Reader*).—This is a failing to which this splendid Grape is subject, especially when the Vines are young, as in your case. Unlike Muscat Grapes generally, which luxuriate in a higher temperature than do other Grapes, Madresfield Court is an exception. This succeeds best under comparatively cool treatment, on similar lines to the Black Hamburgh. The cause of the cracking of the berry in the case of the Grape is now well known among gardeners, as also is the remedy to apply. It invariably takes place soon after the berries have stoned and the time for colouring approaches. The way to prevent it is to ventilate more freely, day and night, during this stage of the Vine's growth and, practically, until the colouring time is over. This will naturally cause the atmosphere to be cooler, and in consequence the swelling of the berries less rapid. Herein lies the secret of the cure. It is awkward for the Muscat of Alexandria when growing by the side of the Madresfield Court, and a compromise will have to be made by giving less air on the lights opposite the former, both top and bottom. A carpenter or handy-man can negotiate this for you.

MISCELLANEOUS.

LEATHER-JACKETS (*Brighton*).—The daddy-long-legs is always most abundant in places where water finds a difficulty in running away, and the drainage of such places is an aid to keeping the pest in check. Starlings, rooks and plover are also useful, for they eat numbers of grubs and flies. Manuring with sulphate of ammonia in spring, raking, so far as is possible, and then rolling with a heavy roller will do a good deal to check the pest; while in summer, when the flies are about, strewing crude naphthalene on the greens will probably act as a deterrent, driving the flies off and preventing them laying their eggs.

NAMES OF PLANTS.—*Enquirer*.—Bo'h the leaves of Ampelopsis might have been gathered from the same plant (A. Veit hii, syn. Vitis inconstans), as they vary a great deal. Information re Bottomley's Plant Food may be obtained from Professor Bottomley, University of London, King's College. It is now obtainable for garden use.

NAMES OF FRUIT.—*J. H.*—Lane's Prince Albert. —*Boris*.—1, Alfriston; 2, Yorkshire Beauty; 3, Cellini; 4, not recognised, poor specimen.—*Norah*.—1 and 2, New Hawthornden; 3, Blenheim Orange; 4, Stamford Pippin; 5, Washington; 6, Beurré Clairgeau.—*E. M. H.*—1, Reimette du Canada; 2, decayed; 3, King of the Pippins; 4, Court of Wick; 5, Beurré Dumont; 6, Hornmead Pearmain; 7, New Hawthornden; 8, Potts' Seedling; 9, Striped Beaufin; 10, Hall Door; 11, not included; 12, Warner's King.—*J. L. W.*—1, Lemon Pippin; 2, Duchess of Oldenburg; 3, King of the Pippins; 4, Lord Suffield; 5, Bismarck; 6, Ecklinville; 7, Hoary Mornin; 8, Hollandbury; 9, Striped Beaufin; 10, Princess.—*Mrs. Phillips*.—The Pear is deformed and out of character, but we believe it is Gilgil.—*H. H., Bristol*.—Pears: 1, decayed; 2, Beurré Diel; 3, Duchesse d'Angoulême; 4, Brown Beurré.

SOCIETIES.

AUCHENCAIRN HORTICULTURAL SOCIETY.

THE annual general meeting of this society was held in the Murray Hall, Auchencairn, N.B., a few days ago. The retiring president, the Rev. W. R. Henderson, presided over a good attendance of the members. The annual financial statement was submitted and approved of. It was of a satisfactory nature, notwithstanding the abnormal conditions caused by the war. The president and other office-bearers were re-elected. Mr. Andrew Macfarlane, The Schoolhouse, Auchencairn, was appointed secretary and treasurer in place of the late Mr. G. F. Mills. After consideration, it was agreed to hold the usual show on August 5, 1916. It was resolved that half of the prize money and the full net proceeds of the show should be devoted to the Red Cross or other war relief funds.

ROYAL HORTICULTURAL SOCIETY.

THE fortnightly meeting held on the 9th inst. was certainly one of the smallest of the present season, albeit there were exhibits of importance. For example, the well-grown vegetables staged by Mr. A. Dawkins and the superb grouping of Chrysanthemums from Messrs. H. J. Jones, Lewisham, were of more than ordinary merit. Shrub groups, Nerines, Carnations and a handsome lot of winter-flowering Begonias were, among other things well shown. Orchid exhibits were smaller than usual, and but few novelties were on view.

FRUIT AND VEGETABLE COMMITTEE.

Present: J. Cheal, Esq. (chairman), and Messrs. G. Bates, E. Beckett, A. W. Metcalfe, H. J. Wright, J. G. Weston, A. Bullock, E. A. Bunyard, J. Jaques and Owen Thomas.

Mr. A. Dawkins, 408, King's Road, Chelsea, staged an exhibit of high-class vegetables immediately at the left of the entrance, the collection, while of a comprehensive character, being also admirably displayed. From a background of superb Leeks, Celery, Kale, Savoy and Cauliflower there appeared a collection of nearly six dozen varieties the finest produce of the outdoor garden, not a little interest centring in the fact that many were from July-sown seeds. Of such, indeed, were Model and other Carrots, than which finer produce is not necessary. Intermediate Beet, a selection from the Globe variety, is full of promise, while the Non-Bleeding Beet, as a novelty, will be welcomed by many who have experienced the drawback of broken roots of this useful vegetable. Kohl Rabi was here in high excellence, and we wonder why so excellent a substitute for the Turnip, and one so easily cultivated, is not more generally grown. Rosette Colewort is valuable, too, and worthy of more attention. Walcheren Cauliflower from an April sowing was of model size, and Celeriac, among others, was worthily presented. In addition, Red Globe and Ailsa Craig Onions, Lyon Leeks, Matchless Carrot, as fine and shapely as could be desired; and Ulm Savory, one of the most compact-hearted, were all worthy of remark. Tomatoes, Capsicums, Radishes and saladings were freely shown. Radish China Rose is strongly recommended by the exhibitor as a useful addition. It is of large size and requires good cultivation. Gold Medal.

Mr. Walter C. Voss, Rayleigh, Essex, exhibited a capital table of fruit, chiefly of Apples and Pears, though a particularly good basket of Quinces was also staged. Of the Apples, Lord Suffield, Emperor Alexander, Newton Wonder, The Queen, Lane's Prince Albert, Garret Pippin (a small, yellow skinned variety), Court Pendu Plat and Scarlet Pearmain were all excellent and clean looking. Of Pears, the more notable were Pitmaston Duchess, Beurré Hardy (both very fine), Beurré Bachelier, Durondean and Beurré Diel.

FLORAL COMMITTEE.

Present: H. B. May, Esq. (chairman), and Messrs. E. A. Bowles, R. C. Notcutt, W. J. Bean, J. Green, G. Reuthe, J. W. Moorman, W. Howe, J. Jennings, J. F. McLeod, C. R. Fielder, J. Dickson, C. Dixon, H. J. Jones, A. Turner, C. E. Pearson, C. E. Shea, W. P. Thomson, J. T. Bennett-Poë, E. H. Jenkins, W. G. Baker and George Paul.

Messrs. H. J. Jones, Limited, Lewisham, S.E., arranged exhibition and decorative Chrysanthemums in their own inimitable way, the group, while a study in good taste, harmony and contrast, also demonstrating the value of these autumn flowers when employed in imposing stands and vases. In these directions, and with high-class material at their disposal, the firm arranged one of those imposing exhibits for which for years they have been famous. Gold and crimson, with occasional vases of snow white, predominated, not a few of the vases containing a dozen or more of the finest exhibition varieties. In the back row were seen such as Mrs. Edwards (white), Estelle (crimson), Mrs. R. C. Pulling (golden yellow), Seddie Mason (single crimson), Bob Pulling (golden), Wiseman and Willie Westlake, pink incurved and golden yellow pompon respectively. Mrs. H. J. Jones (greenish yellow), Maude Lousada (mauve), Mrs. T. Barnes (single crimson), Buttercup (single yellow), Florrie King (pink single), Mrs. MacNeice (mauve), and Excelsior (bronze single) were other good varieties in a group which for high excellence, superb quality and good arrangement has rarely been equalled and probably never excelled.

Messrs. Piper, Barnes and Bayswater, showed an interesting variety of shrubs and conifers in pots, of which the recently introduced Berberis Wilsonae, B. acuminata, B. dictyophylla (in the way of B. Thunbergii, but with whitish stems), and B. Gagnepanii, were among the more important. Hex Perynii, Tricuspidaria lanceolata, Perpetuas, Juniperus tamariscifolia aurea and Berberis Bealii were also on view.

Mr. J. J. Kettle, Corfe Mullen, near Wimborne, again showed a superb lot of Sweet Violets, of which La France, Princess of Wales, Mrs. J. J. Astor, Ascania, Mrs. J. J. Kettle (very sweet), Marie Louise, and semperflorens (of erect carriage) were among the best in a delightful lot.

Mr. G. Reuthe, Keston, Kent, showed cut shrubs, together with Nerines and other things. In addition, there were pretty pots of Crocuses, C. longifolius, C. ochroleucus, and C. marathonsius (white). An extensive collection of alpinas, chiefly of the choicest Saxifragas, was also on view. Growths of Decaisnea Fargesii, carrying many of the roundish-podded, purple-coloured fruits 4 inches or so in length, were among the more interesting things in this group.

The Misses Hopkins, Shepperton-on-Thames, showed a small collection of alpinas, together with Gazanias and Kniphofias nicely in flower.

Messrs. R. F. Felton and Sons, Hanover Square, exhibited vases and baskets of Solanum ciliatum and Eucalyptus globulus, the pods of the latter of a more glaucous blue and white than is usually seen. With a background of Palms and associated with Scarlet Oak and other foliage, the exhibit was attractive in the extreme.

Messrs. J. Cheal and Sons, Crawley, exhibited a table of cut shrubs to show the effects of autumn colouring. Of these, Acer Ozakasuka, Berberis Thunbergii, Taxodium distichum and Quercus palustris were very good. Euonymus europaeus, Berberis Wilsonae and Cotoneaster frigidula, with masses of scarlet fruits, were all good and distinct.

Messrs. Allwood Brothers, Hayward's Heath, again showed a representative collection of Carnations, such as Rosalind (fancy), Champion (scarlet), Salmon Enchantress, Fairmount (the best of the heliotrope set), The Major (Indian red tone, quite a novel colour), Mary Allwood, and Brilliant (a misnomer in view of its dull crimson and murky white tones. It is, however, quite new and distinct). Yellowstone was also pleasing.

Messrs. W. Wells and Co., Merstham, showed a few novelties in Chrysanthemums, the best of which will be given in "New and Rare Plants" in the issue for next week. Of others, Douglas Wells (a fine yellow incurved) and Mrs. M. Sargent (also incurved) were remarkable.

Messrs. H. B. May and Sons, Edmonton, contributed a table of Ferns comprising hardy Polypodiums, Scolopendrium and Osmundas, among others. Of the former, P. vulgare cambricum Barrowii, P. v. c. Prestonii, P. v. trihomanioides, P. v. cornubiense and P. v. pulcherrimum were the best. Scolopendrium were represented by S. vulgare crispum grande and by others of the ramocristato set, of which S. v. ramo-marginatum and S. v. ramo-cristatum gracile were among the more distinct. Nephrolepis and others were in great variety and beauty.

Messrs. G. and A. Clark, Limited, Dover, showed the new pink Chrysanthemum Pink Favourite, which is of quite an attractive shade of colour.

Pot-grown examples of Solanum ciliatum were shown by Mr. R. Leach, Wood Hall, Dulwich. The seeds were sown in March, the examples well fruited.

Messrs. Stuart Low and Co., Enfield, had a nice display of Carnations, the pick of the group being White Wonder, Alice (the new pink), Lady Fuller (deep pink), and Pink Sensation. This firm also exhibited a table of winter-flowering Begonias, of which Emita (deep orange), Exquisite (rose pink and white), Mrs. Heal, Elatior and Optima were the chief. They were well shown in handsome groups.

Messrs. Godfrey and Son, Exmouth, Devon, showed a table of single Chrysanthemums, all of which, save two, were raised by them. Not all the varieties were named. Captivation and Fascination (both of bronze tone), Devonshire Lass (golden), Crimson Beauty and Golden Utility were very good.

ORCHID COMMITTEE.

Present: J. Gurney Fowler, Esq. (chairman), Sir Harry J. Veitch and Messrs. J. O'Brien, J. Wilson Potter, R. A. Rolfe, R. Thwaites, F. J. Hanbury, Pantia Ralli, F. M. Ogilvie, T. Armstrong, Walter Cobb, J. Cypher, W. H. Hatcher, W. P. Bound, C. H. Curtis, Arthur Dye, W. H. White, S. W. Flory and Gurney Wilson.

Messrs. Charlesworth and Co., Hayward's Heath, had the beautiful Sophro-Catt-Lælia Pandora, whose orange red sepals and crimson lip render it an attraction. Cattleya Phrygia, Odontoglossum armainvillierensis xanthotes, Lælia-Cattleya Prospero, Lælia-Cattleya Golden Oriole, and Brasso-Cattleya Thorntonii (palest mauve sepals and golden-flushed tube, the lip heavily fringed) were also good.

Messrs. Stuart Low and Co., Jarvisbrook, Sussex, showed a great variety of Cattleyas, of which C. labiata alba, C. alba Miss Williams (a very fine form) and C. Alcimedea (another beautiful white) were very good. Sophro-Cattleya Doris (of rich scarlet orange tone) was also shown, with Vanda cærulea and some choice Oncidiums.

From Messrs. Sander and Son, St. Albans, came Cattleya Enid var. Albion, C. alba Princess Royal, Odontoglossum macnabianum (yellow with dark markings), O. Alnum (of rich dark colouring) and Cypripedium leucanum Gratixie, together with many choice Cattleyas.

Messrs. J. and A. McBean, Cocksbridge, Sussex, showed Sophro-Cattleya Pearl, a unique bigeneric hybrid that gained an award of merit; also Cattleya Fabia and Cattleya hardyana.

A bright and interesting group of Orchids in season was sent by Messrs. J. Cypher and Sons, Cheltenham. We observed Cattleya bowringiana atrosanguineum, with masses of bloom; Cypripedium Maudiae and Dendrobium Phalaenopsis splendens in this fine collection.

WARGRAVE GARDENERS' ASSOCIATION.

THE meeting on Wednesday evening, November 3, took the form of competitions in vase decoration. In the class for head-gardeners and foremen there were eight entries, and the following were the prize-winners: First, Mr. F. Gray; second, Mr. H. Attlesley; third, Mr. J. Wixon; fourth, Mr. F. Hobbs. The judges awarded Mr. T. H. Pritchard a second prize in the journeyman's class. The judges complimented the prize-winners on the arrangement of the flowers, some of which were very tastefully staged. Votes of thanks were accorded the judges and the donors of the flowers. A cultural certificate was awarded Mr. R. Doe for a beautiful Lælia-Cattleya. The flowers were despatched to the Reading Hospital the following morning.

THE GARDEN.

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NOVEMBER 20, 1915.

NOTES OF THE WEEK.

Chrysanthemums at Finsbury Park.—There is an admirable show of Chrysanthemums in this North London park, and for the next few weeks the house in which they are displayed will be open to the public. The large yellow heads of Bob Pulling appear even more shaggy than usual alongside the delicate pink and finely petalled Rayonnante. Of the large Japanese varieties, D. B. Crane (golden yellow), Mrs. R. A. Witty (reddish terra-cotta, broad drooping florets), Mrs. J. B. Riding (sulphur yellow), Walter Jinks (rose pink) and Queen Mary (pure white, a gigantic beauty) are well represented.

The Golden - Flowered Pericome caudata.—What a pity this beautiful plant is not better known. The strong-scented, golden yellow flowers are produced for a long period at this time of the year. It is a native of Colorado, and was introduced in 1896. By some authorities it is spoken of as a shrub, but in the Botanic Garden, Cambridge, where a large clump growing in the open flowers freely every year, it never attempts to be anything other than herbaceous.

Nymphæas Flowering Outside in November.—It is interesting to see several Water Lilies which are not hardy flowering outside at Kew when the hardy hybrid varieties are over. The pond where they are growing in the Southern Pinetum is slightly heated with condensed steam and surplus water from the engine which maintains the supply of water for the Gardens. Nymphæa Lotus rosea, a beautiful rose, and William Stone, a rich blue, are the very last to flower. These and several other tender sorts add considerably to the interest and beauty of a Lily pond. They are distinct in colour, especially the blue, from the hardy Water Lilies, and the flowers stand 1 foot to 1½ feet out of the water. The tubers are found to keep quite well in this pond during the winter, but they start into growth late, and for this reason are transferred to a greenhouse tank, being returned to the outside pond when the first flowers are opening early in June.

A Rare Orchid from the Philippines.—Vanda luzonica, which gained an award of merit at the Royal Horticultural Society's meeting on November 9, was referred to in the *Orchid Review* last May. Mr. Rolfe, to whom we are indebted for the illustration, says: "We have known this

species for years, but are not aware that any description has been published. Dried specimens, drawings and a photograph were sent to Kew by Mr. Loher in 1906, with the remark that it is allied to *V. tricolor*. The habit and floral structure are well shown in the photograph. The flowers are described as cream coloured, with the front lobe of the lip amethyst. It was found at Montalban, in the Island of Luzon, and living plants were sent

He is the eldest son of the late Mr. Martin John Sutton and eldest grandson of the late Mr. Martin Hope Sutton. He was educated at Harrow and Christ Church, Oxford, and shortly after coming down from the University, in the autumn of 1895, he made a nine months' tour of South Africa, Australia, New Zealand, Tasmania and Ceylon. Subsequently, in the spring of 1897, he became a partner of the firm of Sutton and Sons, and has since

directed his firm's extensive foreign trade.

A Chinese Honeysuckle.—*Lonicera trichosantha* and *L. ovalis* are names given to a Chinese Honeysuckle now fruiting freely in our gardens. Though first discovered by a Russian collector, we are indebted to Mr. E. H. Wilson for the introduction of the plants which suggest the writing of this note. Free in growth, *L. trichosantha* forms an elegant deciduous bush, which is already some 6 feet in height. A pleasing semi-pendent habit of the secondary branches gives this Chinese Honeysuckle a decidedly ornamental appearance. The flowers are yellow, not large, being only half an inch or rather more in length, but they are freely produced, while at the present time the Red Currant-like fruits claim attention. These are borne in the axils of the leaves and usually in pairs, thus appearing in clusters of four.

An Example Worth Following.—In these days, when men of all classes are seeking the best investment, it will interest many to hear that there is at least one man—a keen amateur to wit—whose rate of interest, the result of a small plunge last March, is calculated to make even the most astute financier green with envy. At the period named this grower purchased a sixpenny packet of Rousham Park Onion seed, a selection which would have done credit to a more experienced grower. This he sowed on land having nothing beyond the ordinary digging and manuring one usually associates with the cottager. The drills were 8 inches

apart, and the advice to sow thinly was rigidly adhered to, yet, notwithstanding this, overcrowding was apparent in many places, affording a plentitude of salad for the grower and his neighbours. Three good dressings of soot were given from May to the end of July. The crop was "roped" during the last week in September; this amounted to over three bushels, for which a local greengrocer gladly paid half a sovereign.



VANDA LUZONICA, A RARE ORCHID FROM THE PHILIPPINES, WHICH RECENTLY GAINED AN AWARD OF MERIT.

to Erlangen." The plant shown does not quite agree with this colour description, as the flowers were of the purest white with a crimson purple tipped lip. Such colour variations are not unusual, but the flowering of this species in this country is a matter of real interest to orchidologists.

Mr. Martin H. F. Sutton, J.P.—Congratulations to Mr. Martin H. F. Sutton, who has just been appointed a magistrate of the Borough of Reading.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Rose Earl of Warwick.—Being keen on Rose-growing, I find THE GARDEN much the most interesting of all the gardening papers. Your lists of different Roses with their particular merits and otherwise are most interesting. My experience of Earl of Warwick is quite different from that of your correspondent Mr. E. Waters in his "Roses in Yorkshire." I am only eighteen miles from Leeds, and have only one tree of Earl of Warwick, but it has bloomed so splendidly and continuously that I have ordered a further supply. But I am out of the smoke, which may account for it.—J. V. H., *Scissett Vicarage, Huddersfield.*

Cassia corymbosa Flowering Outdoors.—Almost every horticulturist is familiar with this name when associated with plants for the greenhouse, where it may frequently be found used as a roof plant either planted out or grown in pots, and for many the latter method is preferable, as the growth is not so rampant and may be restricted to the rafters, so keeping the roof glass free. Appreciated as it is inside, I think it is more so when growing out of doors. Here at Fota Island, the seat of Lord and Lady Barrymore, there is a fine plant covering a wall some 24 feet long, and it has been a mass of flower for weeks past. At the time of writing (November 8) it is still flowering freely, and promises to continue so for some time, as there are a wealth of flower-buds unopened. (We have had two slight frosts sufficient to injure Vegetable Marrows.) All through September it was a mass of bloom, and the rich yellow flowers make the plant unmistakable. Doubtless in other parts of Ireland that enjoy a good climate such as this other

good specimens are to be found, as well as on favoured walls elsewhere. It is interesting to note that, according to the "Kew Hand List," it is a native of Tropical America.—E. B., *Queenstown.*

The Fruits of the Strawberry Tree.

I have in my garden two large Strawberry Trees (*Arbutus Unedo*), each bearing at the present time a fair sprinkling of the Strawberry-like fruits. Although bright in colour, the fruits are very poor in flavour. Even birds—which are capable judges of flavour in soft fruits—seem to carefully avoid the *Arbutus* berries unless very short of food in hard winters. It is no unusual thing for the berries to ripen and fall to the ground untouched by birds. Although very little can be said in favour of the edible qualities of the fruit, yet it should be even more extensively grown than it is, by virtue of the fact that it is one of the most beautiful of evergreen trees. The naturally peeled boles of this tree in large specimens are very handsome, and are as much admired as the attractive flowers and fruits. I believe that in Northern gardens this tree is sometimes injured by severe frosts, but here in the South the trees are seldom, if ever, touched by the frost. As a specimen tree for a lawn, *Arbutus Unedo* is much to be commended.—*ARBUTUS, Surrey.*

Deutzia Vilmorinæ in Ireland.

Many people consider this the best of the *Deutzias* introduced to our gardens during recent years. It seems to be seldom damaged by spring frosts, and is proving itself a very free flowering shrub. It reaches a height of from 6 feet to 7 feet, the rather long lanceolate leaves closely resembling those borne by the *Philadelphus*. Its flowering season is usually early June, and at that time its graceful pendent shoots are liberally bedecked with snow white flowers. The flowers are carried in clusters, each being almost an inch across, the petals being prettily crimped. *D. Vilmorinæ* is a native of Szechuan, China, whence seeds were sent to M. Maurice de Vilmorin at Les Barres by the Abbé Farges in 1897. It first flowered in this country about ten years ago.—S. R.

Erigeron philadelphicus.—The illustration of *Erigeron mucronatus*, issue November 6, page 541, calls to mind another pretty form, as above. This charming little plant I found growing in a cottage garden many years ago, since when I have never been without it. It is no trouble whatever to grow. It does not ever require propagating, as seedlings



A FRUITING SPRAY OF THE STRAWBERRY TREE (*ARBUTUS UNEDO*.)

spring up every season, which provide all the necessary stock. Personally, I grow it in the border, but its dwarf habit makes it suitable for any position, as it is constantly sending up fresh sprays of dainty little pink Daisy-like flowers.—T. A. W.

Changing the Botanical Names of Plants.

In reference to the further note on this subject by Mr. W. R. Dykes, I, being but a plain gardener, know nothing of the Vienna Congress. What I do know, however, is that this continual chopping and changing of names is a great nuisance to everyone. It is not as if all authorities were agreed, as the name would then have to be learnt only once; but as it is at present the average individual with but a limited library cannot keep touch with the changes. My original note referred to the general reversal of the names of Ferns, and a good illustration of the inconsistency of the whole affair is to be found in THE GARDEN for November 6, the same number, by the way, in which the last letter from Mr. W. R. Dykes appears. It is recorded on page 543 that *Scolopendrium vulgare crispum speciosum* was awarded a first-class certificate at the meeting of the Royal Horticultural Society held on October 26. As this award was made by the floral committee, and presumably confirmed by the Council, it would appear that both of these bodies countenance the use of false names, for, according to the "List of Certificated Plants," and using the words of that publication, "*Nephrodium* now becomes *Dryopteris* and *Scolopendrium Phyllitis*." As this system of nomenclature has been ignored by both the floral committee and, presumably, by the Council, one cannot avoid asking the question whether such a radical change has been tried and found wanting, or whether these bodies, being composed of practical men, are convinced that the adoption of it will lead to no end of confusion? Other instances of differences of opinion may be found, for in the "Horticultural List" *Richardia Pentlandii* is referred to *R. angustiloba*, whereas in the recently published "Kew Hand List of Tender Monocotyledons" the two are kept distinct. The "List of Certificated Plants" gives the hardy *Clerodendron trichotomum* as a variety of the tropical *C. Thomsonæ*, a climbing plant. I at first looked upon this as a simple mistake, but in view of the upsetting of all preconceived notions, it is now at least open to doubt what is intended.—H. P.



DEUTZIA VILMORINÆ IN THE BOTANIC GARDENS, GLASNEVIN.

Fragrant Roses.—I am much obliged to "E. M." for his supplementary list, issue November 6, page 540, of fragrant Roses, the first-mentioned of which, Queen of Fragrance, I have added within the last week to my collection. In this exquisite direction I think that such varieties as La France, Viscountess Folkestone, and, above all, General Macarthur will not soon be superseded.—DAVID R. WILLIAMSON.

Bracken Roots.—Will anyone tell me where, how, and at what price I can get some bushels of Bracken roots? I want to plant some amid my little "pocket Bournemouth" plantation of Pines and Firs. I read that in some places in Scotland Bracken is considered a pest, and ploughed up and destroyed. Here I prize it as a choice vegetable in spring, a beautiful foliage plant in summer and autumn, and a most useful "litter" whereon to store Apples and to protect tender Roses and perennials in winter.—ANNE AMATEUR.

Apple Lane's Prince Albert.—Is this our most consistent cropper among the indispensable culinary Apples? A really good harvest of them during three successive seasons here almost compels me to that conclusion, at any rate where a poor Apple soil has to be grappled with. The soil here is very sandy, and some fruits do not take kindly to it; but the Apple in question does not heed the compost at all. The trees are in several forms and ages, but they all respond equally well, and the fruit keeps well also. This season they are fit for picking just about a fortnight before last year, which I take it is due to the wonderful September sunshine we have experienced and hardly any rain. — H. TURNER, *Scribby Gardens*.

Two Climbing Actinidias.—The beautiful climber *Actinidia chinensis* made rapid growth this season, the young shoots and leaves being objects of great interest with their covering of bright red hairs. *A. chinensis* is practically a new species from China, and anyone thinking of planting climbers would be well advised to include it in their list. It has proved wonderfully hardy with us here, growing in a very cold, stiff clay. Unfortunately, it has never yet flowered with us, but I understand the flowers are borne in clusters of yellow, succeeded by fruit which is edible and not unlike the Gooseberry. *A. polygama* is another useful species. It is a native of Japan, and differs a good deal in appearance from *A. chinensis*, the leaves in this instance being smooth, with red stalks. Both are rampant climbers. I wonder if any of your readers in the North have ever seen them flower or fruit.—JAMES McGRAN, *The Gardens, Coodham, Kilmarnock*.

The Fruiting of Choice Shrubs.—Your note in the issue of October 16, page 503, on the fruiting of choice shrubs, is very interesting. I have this day (October 16) gathered two dozen fruits of *Magnolia parviflora* containing ripe seeds. The fruits are deep rose coloured, and as they split open reveal bright orange-coloured seeds. I have never seen a *Magnolia* fruit before, and should like to know if it is unusual. I also gathered two fruits of *Xanthoceras sorbifolia*, each containing three fully matured seeds.—A. GRANT, *New Place Gardens, Haslemere*. [*Magnolias* of various kinds produce fruit regularly in this country, and in many cases they are very attractive. *M. tripetala* bears red, cylindrical fruits 3 inches to 4 inches long and 2 inches wide, which, when ripe, split open and release the orange scarlet seeds, each of which hangs from the fruit by a slender, silk-like thread for several days

previous to falling to the ground. This is a peculiarity of the seeds of other *Magnolias* also. *M. conspicua*, *M. obovata* and *M. soulangeana* are other kinds that bear attractive fruit fairly regularly. Perhaps the most beautiful of all the *Magnolia* fruits are those of *M. hypoleuca*, however, for in this case they are a particularly rich red, 4 inches to 6 inches long, and erect on the branches. *M. parviflora* has borne fruit on numerous occasions in this country, from which plants have been raised. The fruiting of *Xanthoceras sorbifolia* is less common.—ED.]

The "Daffodil Year Book, 1915."—While agreeing with Mr. Engleheart's general appreciation of this work and with his congratulations to the Editor thereon, I think it is desirable to put in evidence views of "the other side" on the two matters Mr. Engleheart concentrates his criticism on, and I hope I may be able "to write English" in doing so. It is somewhat of a coincidence (and shows how sadly I fall short of perfection) that in writing to the Editor and to another

and if that is so, why should not we have coloured photographs, even if we have to pay twice or four times as much for our "Daffodil Year Book"? But if we cannot have coloured photographs, I trust we may still continue to have photographs of the novelties, even if it is at the sacrifice of some of the personal portraits. When a man who has been a well-known worker among our favourite flower has to pass away, I think a portrait of him at the midday of his work absolutely appropriate to a Year Book; but while I have the pleasure of seeing him from time to time I do not want his portrait. Would Mr. Engleheart relinquish his desire for portraits if the giving of them up helped, by way of saving money, to our having colour photographs?

The second criticism of Mr. Engleheart with which I do not entirely agree is the one in regard to the tabulated lists of crosses, "successful and unsuccessful." I agree that because a certain flower we have endeavoured to fertilise with pollen from the brush gives seed it does not



COOKING APPLE LANE'S PRINCE ALBERT. IS THIS OUR MOST CONSISTENT CROPPER?

Daffodil enthusiast in praise and criticism of the "Daffodil Year Book," I said I thought more illustrations of flowers and fewer personal portraits would have been better. Uncoloured photographs cannot, of course, convey the general colour effect of a flower, and as an admirer of *Ixion* I particularly noticed the illustration of this flower; but surely a photograph, if honestly taken, depicts the general style of the flower and with more accuracy than many drawings do, as the temptation to make the illustration show up as a picture so often spoils it as an accurate depiction of the flower.

Again, surely the photograph is an invaluable ally to "the power of turning the pen into a colour brush." How greatly Mr. G. L. Wilson's article is illuminated by the photograph of the two dissimilar flowers from one cross! But are colour photographs "over expensive"? When I have been tempted to make enquiries as to the price of coloured photographs of single flowers, it seemed to me that if a number of reproductions were required, the cost would not be "over expensive,"

follow that the fertilisation by the brush produces the seed, but so far as my own 1,700 "successful" crosses are concerned, in very few cases have the results shown that the brush fertilisation has clearly failed and that the flower has been otherwise fertilised.

If the large majority of brush fertilised flowers give progeny, showing the cross has been successful, is it not interesting (especially to the beginner, and, after all, is he not the one to consider most) to know what others are doing and what flowers they have found to give seeds and what flowers have not? Take, for instance, Dr. Lower's unsuccessful crosses; in many instances they confirm my own experience. Possibly it is the unsuccessful crosses that are most interesting or instructive. Always assuming that my suggestion that most flowers after treatment with the brush, if they give seeds have been fertilised by pollen from the brush, is it not most interesting to see what others have succeeded with when we have failed?—C. LEMESLE ADAMS, *Pendeford Hall, Wolverhampton*.

OUTDOOR OR BORDER CHRYSANTHEMUMS.

AVON," on page 545, issue November 6, refers to a variety named Pink Pearl, but, assuming there is a border variety of this name, it will be necessary when ordering to stipulate this fact. The only Pink Pearl I am acquainted with is a variety of the market decorative type. When disbudded it comes as large as Cranfordia, and flowers as late or later, so much so that it runs a great risk of being damaged by frost before opening. It is, however, a most beautiful variety and well worth protection.

In a normal season most of the varieties mentioned by "Avon" are September flowering. The present season, however, is an exception, for with me only Roi des Blancs flowered before October was in. While I admire and grow the small-flowered spray varieties, I would urge everyone to take up the large-flowered market varieties, such as Cranfordia, Cranford Pink, Elsie Eadie, Cranford Yellow, Mrs. Roots, and Framfield Early White. Grown well and disbudded to one on a stem, the flowers are magnificent in October.

Many labour under the impression that large flowers can only be grown under glass, but with such varieties it is easy to get plants carrying six to nine flowers measuring 5 inches or more across. At the time of writing (November 8) Cranfordia is, despite the recent frost, giving grand flowers. To ensure them coming in as early as possible, such varieties should be cut back once only in June and every shoot secured, all of which should be restricted to one flower. They make very good sprays, however, but are somewhat stiff.

For sprays of high quality I favour *Almirante (bronzy red), *A. Barham, *Batchelor's White, *Countess, *Polly, *Crimson Polly, Dorothy Ashley, Dolores, Goacher's, *Mme. Drouard, *Mme. Marques, Nina Blick, *La Neva, *Le Cygne, *Roi des Blancs, and Wells' Crimson.

Nearly all are suitable for disbudding, especially those marked with an asterisk. I would urge everyone to adopt disbudding in the garden, for while it naturally reduces the crop, the quality is so far in advance that the flowers invariably arouse astonishment among those familiar with border Chrysanthemums.

After all, do we not garden largely with a view to showing our friends what we can do? "Grow something different and something better than is visible anywhere about" is the motto I like to act up to. I do not say I always succeed, but so long as I keep up a display differing from the other gardens around I am content. T. A. W.

NEW AND RARE PLANTS.

FIRST-CLASS CERTIFICATE.

Odontoglossum Pemburyi (*O. gandavensis* × *O. eximium*).—A remarkably distinct and beautiful hybrid, and one of the darkest-coloured *Odontoglossums* we have seen. The sepals and petals, save for a fine wire edge of white and white tips, are wholly coloured dark maroon, the striking contrast thus created being emphasised by the wholly pure white lip. A robust example was shown bearing a raceme of ten handsome flowers. Exhibited by J. Gurney Fowler, Esq., Brackenhurst, Pembury, Kent.

AWARDS OF MERIT.

Vanda luzonica.—An entirely new species from the Philippine Islands. The exhibited

closely set lip being of crimson hue. From Messrs. J. and A. McBean, Cooksbridge.

Brasso-Cattleya Admiral Jellicoe Broadlands Variety.—A variety of handsome proportions, the sepals and petals coloured rose pink. The frilled lip is of a somewhat deeper shade, and with a touch of yellow in the tube. From Mr. E. R. Ashton, Camden Park, Tunbridge Wells.

Begonia Fireflame.—A good addition to the winter-flowering set, having orange, scarlet-suffused flowers. The plant is of compact habit, very free flowering and sturdy withal. Shown by Messrs. Stuart Low and Co., Enfield.

Chrysanthemum Phyllis Cooper.—Without doubt the finest single variety to date of its colour, which is rich orange yellow. Of large size, with good self-supporting stems and short, stiff neck, it will prove invaluable for decorations. It leaves Buttercup, one of the best hitherto, a long way behind. From Mr. Philip Ladds, Swanley.

Chrysanthemum Golden Champion.—A Japanese exhibition variety of massive proportions and rich yellow colour.

Chrysanthemum Edith Cavell. This is also an exhibition variety with some slight inclination to incurve. The colour is bronzy red, with gold reverse. These were shown by Messrs. W. Wells and Co., Limited, Merstham.

Solanum ciliatum.—A large exhibit of cut fruiting sprays of this species was on view, the numbers of scarlet fruits, the size of a small Tangerine Orange for the most part, creating a great attraction. It is quite a remarkable plant in decoration, lasting for months in good condition. We believe the Kew authorities now refer to it as *S. aculeatissimum*. Exhibited by Messrs. R. F. Felton and Sons, Hanover Square, W.

NEW FRUIT.

Apple Madresfield Court (Ribston Pippin × Worcester Pearmain).—An attractive-looking dessert sort of conical build and moderate size. The flesh is slightly yellow, soft and juicy. From the flavour standpoint we regard it as a second-rate variety. From Mr. J. Carloss, Melbourne, St. Barbourne, Worcester.

The whole of the foregoing novelties were exhibited before the Royal Horticultural Society on November 9, when the awards were made.

THE AUTUMN CROCUSES.

From the aesthetic point of view, there is little doubt that *C. speciosus* and its varieties take first place among the autumn Crocuses.

C. s. Aitchisonii is considerably larger than the type, if a trifle paler, and *C. s. Artabir* eclipses both the foregoing and is altogether a most desirable Crocus. *C. s. albus* is quite unique, of



NEW SINGLE YELLOW CHRYSANTHEMUM PHYLLIS COOPER.

example, which bore a short raceme of five or six flowers, is believed to be unique. The flowers are of the purest white, with crimson purple tipped lip. It is as beautiful as it is distinct. Shown by Messrs. Sander and Sons, St. Albans. (See illustration and note on "Notes of the Week" page.)

Sophro-Cattleya Pearl (*Sophro-Cattleya Doris* × *Cattleya Portia magnifica*).—A distinct and solid-looking variety of somewhat flattish appearance, caused by the lie of the broadly ovate petals, the sepals being quite narrow by proportion. The dominant colour is reddish purple, the sturdy,

course, and its white satiny flowers are very attractive; unlike many albinos, it has a good constitution.

C. nudiflorus, the Naked-flowered Crocus, is also very attractive with its pale bright purple flowers. *C. asturicus* has purple lilac flowers, striped darker towards the base. *C. medius* has deep purple flowers, which show up well in the autumn sun. *C. longiflorus* is a charming Crocus, sweetly fragrant; it has lilac flowers, their beauty enhanced by their red pistil and yellow anthers.

The foregoing selection by no means exhausts the list of autumn Crocuses, but I think they are among the best. They are all quite cheap. Autumn Crocuses should be planted not later than the end of August.

CALEDONIA.

LAPAGERIA ROSEA.

THE Lapageria has now been familiar to us for more than sixty years, having been introduced from Chile in 1847. Notwithstanding this fact, it is surprising to note how comparatively seldom one sees a plant of it flourishing

as a perfectly healthy specimen should do. This is to be deplored, for the Lapageria, unless successfully cultivated, is, perhaps, of all greenhouse plants, the most disappointing. Its culture understood, however, it undoubtedly proves one of the most attractive and useful cool-house climbers we have. The wax-like flowers, gracefully hanging from the roof of, it may be, a corridor, or a small or large conservatory, make a display that for refined beauty would be difficult to surpass.

The genus Lapageria contains only the one species, *L. rosea*, but the flowers of this vary considerably in size and substance, according as one has a good or a bad form of it. It behoves one, therefore, to be careful in selecting one's plants, and to obtain them from a stock that can be relied upon. An excellent way of displaying the flowers of the Lapageria to the best advantage is to plant *L. rosea* and *L. rosea alba* alternately, or, say, two of the former and one of the latter. By adopting this method the beauty of both is enhanced by the contrast produced.

Lapagerias usually succeed best when planted out and disturbed at the roots as little as possible.

When cultivated in pots it, of course, becomes necessary to disturb them at intervals for the purpose of repotting, an operation that is not conducive to their well-being. A fairly large root run will be required, so as to ensure the non-disturbance of the roots for several years at least. The depth of soil need not, indeed must not, be great, or the roots will eventually descend beyond control, perhaps into soil that is unsuitable to them. By having the majority of the roots comparatively near to the surface of the prepared border, when a fresh supply of food becomes necessary this can easily and effectually be supplied by a top-dressing of new and enriched soil. That thorough drainage should be provided for such an amount of soil goes without saying; rough sand and charcoal mixed with the compost of peat and loam will ensure this.

It is important to commence with strong and vigorous plants, preferably obtained by layering firm, healthy shoots. These when well rooted can be taken up and transferred to their permanent quarters at once. Weak plants, even if they do eventually succeed, which is improbable, are for long a source of disappointment.

It would be interesting to hear from readers who have had experience in the outdoor cultivation of Lapagerias—said to be successfully practised in some of the warmer districts of



Britain—if they really grow sufficiently well to be of value in the garden. We have seen Lapagerias growing outside on a warm wall in a Surrey garden. The plants are growing moderately well, and are at this very time producing a few trusses of bloom; but we have never seen Lapagerias really happy in an outdoor position, though it is probable they would succeed in Cornwall.

TWEEDIA CÆRULEA.

By J. T. BENNETT-POE, V.M.H.

It is often a matter for surprise why the subject of this note has been ousted, as so many other good and interesting plants have been, by the craze for many years past for Pelargoniums and Begonias. Blue flowers for the greenhouse are none too many, and this one is of such an exquisite turquoise blue that one wonders why it is not often found in our greenhouses in summer-time, when the long continuance of its blooming season renders it valuable. It is easily grown from seed, is a perennial of slender, semi-climbing habit, and if cut down in the spring when young growth from the base has well started, it soon makes a good plant for the ensuing season. Introduced more than half a century ago, it first flowered at the Glasnevin Botanic Garden, and was figured in the *Botanical Magazine*, t. 3630. It is also found under the name of *Oxypetalum cæruleum*. It is a native of South America.

LAPAGERIA ROSEA, A WELL-KNOWN GREENHOUSE PLANT WITH WAX-LIKE FLOWERS.

GARDENS OF TO-DAY.

MARKYATE CELL, HERTS.

THIS fine old place, in the generous hands of its present owner, William M. Macleod, Esq., has been so wonderfully improved during the last few years that it has become one of the most delightful of English gardens.

Mr. Macleod purchased the estate some five or six years ago, and in that short time has trans-

Coniferae do not thrive very well on the chalk, and none of any size is to be met with.

The Rose Garden.—This is one of the features at Markyate Cell, and has been very carefully planned. The beds are filled with some originality, for instead of, as is usual, each containing one variety, several varieties of nearly the same colour are planted in each. This, besides allowing a much larger number of varieties to be cultivated, also ensures a fine display every year, as when one variety may not find the season entirely to its liking, another invariably does so.

In front of this are large beds of Dwarf Polyantha Roses in all the finest varieties. Very fine were Jessie and Katherine Zeimet. Dotted between these Roses are hybrid Gladioli, which in autumn provide a fine display when the Roses are over. A broad walk runs the whole length of the garden and in front of these Rose-beds. On the opposite side of this walk is quite a unique feature. It consists of three rows of dwarf Tree Box, planted hedge fashion, and with about 12 inches between the rows. At regular intervals and at right angles one row of the same runs out

to the walk. The "bays" thus formed are planted with sweet-scented flowers only, such as Stocks, Lavender, Mignonette, Nepeta and Heliotrope. The Nepeta is largely used all over the garden, its masses of lavender-coloured flowers being very restful to the eye. On the next terrace the sloping bank is filled with oblong masses of all the best Antirrhinums. When in full flower this is quite a brilliant border.

The Pergola.—The next terrace is entirely filled with an imposing pergola and flanking broad herbaceous borders. These borders are filled with great numbers of the best perennials and biennials, besides bulbs, &c., and are thus wonderfully bright from February to November. At the time of my visit, Delphiniums, Gaillardias, Canterbury Bells, Violas, Nepetas, Erigerons, English Irises, Campanulas, Anchusas and many others were in full glory. For late blooming, Phloxes,

Asters, Dahlias, and Helianthus are in large numbers. The pergola itself is rather out of the common, the pillars being of brick. Roses, Honeysuckle, Clematises and other climbers are employed to clothe this structure. The effect is very fine, and will be even better a year or two hence when everything has made more growth. Small square beds filled with *Lilium candidum* and carpeted with Violas surround the bases of the pillars, affording a fine setting to the whole.

The Blue Border.—This is another charming feature of this unique garden. It is not always an easy matter to successfully lay out a one-colour border, but I must say the one under review is well done. The plants used are Anchusa, Erigeron, Delphinium, Lavender, Nepeta and several others. A patch or two of a very fine strain of *Convolvulus minor* has a telling effect in this border.

The Glass Houses.—These are all new structures, and Messrs. Weeks and Co. of Chelsea were just putting the finishing touches to the work. They consist of three span-roofed ranges and are of the latest type, with some quite recent improvements in ventilating gear. The structures are plain, but substantial and thoroughly well



MARKYATE CELL: LOOKING ACROSS THE ROSE GARDEN TO A STEPPED YEW HEDGE.

formed the gardens from an uninteresting wilderness into a perfect and restful floral Paradise. All this improvement, wonderful to relate, has been carried out without changing the old-world charm which is one of its greatest attractions. While Mr. Macleod is passionately fond of his beautiful garden and noble park, it is really his gifted lady who is responsible for the planning of the improvements. In this praiseworthy work she is ably served by her gardener, Mr. J. W. Forsyth, who, besides being an able, all-round gardener, is an excellent draughtsman. Mrs. Macleod, while taking full charge, as it were, of the remodelling of the gardens, leaves the working out of details to her gardener, and this he invariably carries out in a most satisfactory manner.

The Park.—This is of generous proportions and beautifully wooded. Of at least 100 acres in extent, it rises gradually from the public road to the house. It is seldom that I have seen finer park trees. Walnut, Elm, Sycamore, Ash, Oak and Chestnut, all of fine growth, are the principal kinds, and very imposing they are. Chestnuts are of much greater height than is commonly met with and when in flower are very effective.

This year all varieties seemed to have found the season favourable, for on my visit on June 30 the whole garden was a picture of beauty. It would be wearisome to mention the names of all the Roses used, but specially good were Molly Sharman Crawford, Lieutenant Chauré, General Macarthur, Caroline Testout, Mme. Abel Chatenay, Château de Clos Vougeot, Mme. Segond Weber and Pharisæer. A large corner bed is filled with mixed Roses, and these, too, showed up bravely. The wall on the north side of the Rose garden is surmounted by a narrow border and walk, as the ground rises abruptly here. The border is planted thickly with the pretty pink Rose Mrs. Cutbush, and is a very effective and appropriate finish to the garden. The stone-paved paths, with numerous alpenes growing in the joints, make a charming change from the orthodox gravel walks.

The Flower Garden.—This is of considerable extent, and consists of a series of terraces, all beautifully planned and laid out. Starting at the top or north side, we have the original garden wall, against which has recently been planted a number of Peach, Apricot and Plum trees. Some 3 feet or 4 feet from the wall is a dwarf hedge of that pretty pink Rose Zephyrine Drouhin.

finished. The heating is ample and thoroughly under control. Altogether a well-planned glass department.

The Dutch Garden.—This has only recently been completed, and is, in a measure, the finishing touch to the many satisfactory schemes undertaken during the last year or two. This new garden takes the place of what was truly an eyesore when in close proximity to such a well-planned garden. An old sawmill and other necessary but unattractive objects have been removed and this beautiful formal garden substituted. *Preston House Gardens, Linlithgow.* C. BLAIR.

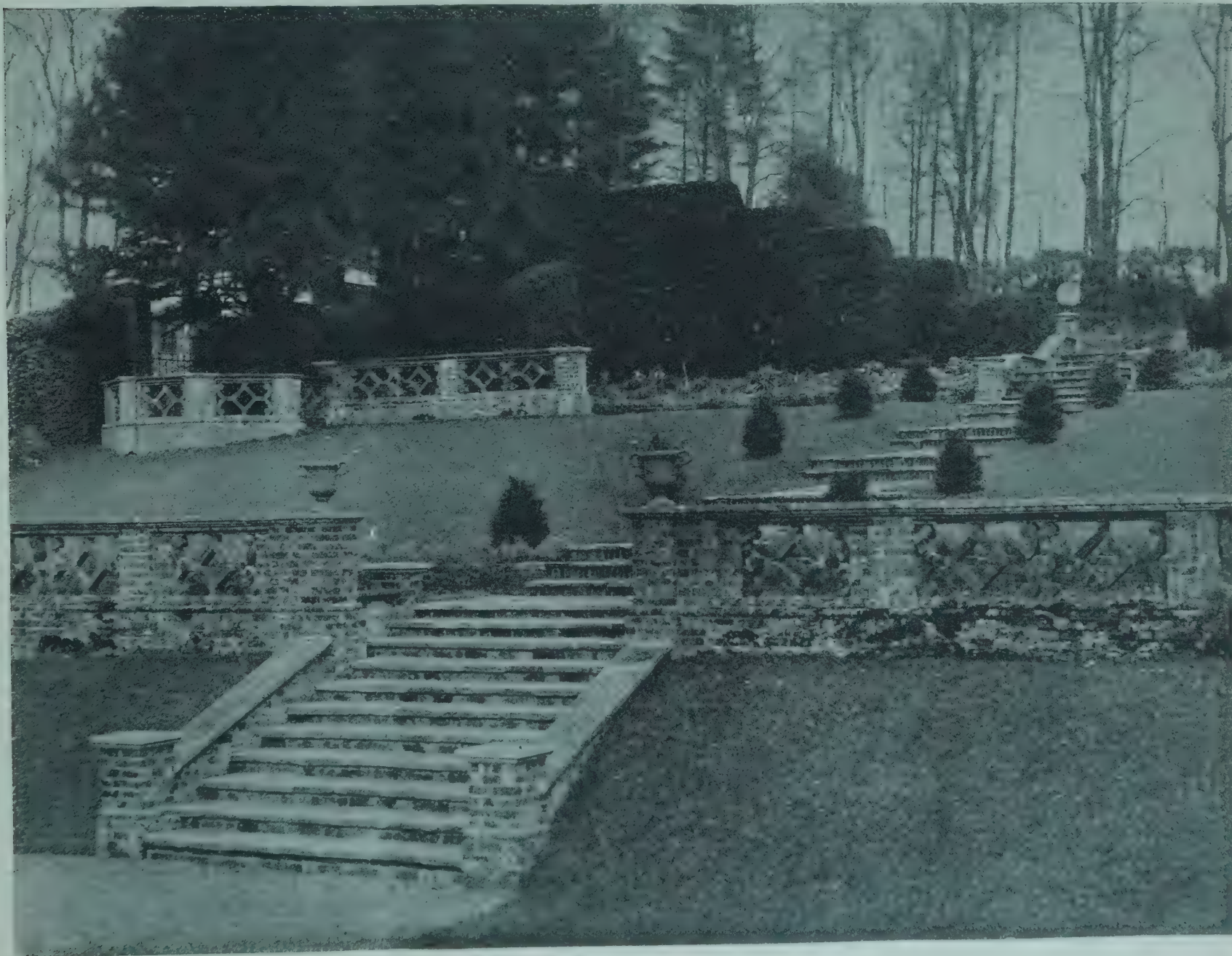
SWEET VIOLETS.

THE fresh, sweet smell of Violets on a warm, dry bank near the house of the writer in Buckinghamshire served as a reminder of the exquisite varieties that are the pride of many an English garden—the large deep blue Princess of Wales, the white Comte de Brazza, each flower a perfect rosette of petals, and the pale-lilac Marie

Louise. A frameful of the Violet Princess of Wales is something to feel proud of, and the long stems make it most acceptable for cutting. It is only in the pure air of the country that the Violet can be grown with any success. Fog, smoke, and the impurities of the town air are an abomination to it, and it is for this reason that attempts to cultivate the plant near large towns have been given up as certain failures. I know of one great garden near London in which no expense has been spared to coax the sweet flower to behave itself, but without success, the winter fogs, dampness and absence of sunlight quickly turning the leaves yellow, which is the first symptom of general decay. The soil should be well prepared, and, if naturally light, should be made heavier by incorporating with it, some time before planting actually takes place, well-decayed manure and leaf-mould. If, however, it is heavy, the manure will not be necessary. A start may be made at the end of March, when the plants may be put out about 2 feet apart in the rows, with a space of 15 inches between the tufts, except in the case of the variety Princess of Wales. This develops in one season into a tuft 18 inches across, and therefore about 3 feet will be the correct

space. Always purchase the strongest plants; they may be more expensive, but the return they will give in flowers will repay for the additional outlay. In February the ground should be prepared in readiness for the plants to go out at the time I have mentioned. During the summer months water freely when the weather is hot and dry, and hoe occasionally between the tufts, for the twofold purpose of keeping down weeds and preventing the soil from becoming, as the gardener says, "caked"—that is, too solid to allow access of rain and air to the roots. Another way of sheltering the plants during a very hot summer is to spread leaf-mould or short manure between them. This not only acts as a protection, but is stimulating to the growth.

Perhaps one enjoys the Violet more in the winter than at any other season of the year. Its fragrance brings thoughts of warmer days to come, and a few flowers of the Princess of Wales variety will scent a large room. Where Violets are desired in winter, the plants should be removed to cold frames or slightly heated glass pits at the end of September; but nothing must be attempted in the way of forcing. The Violet loves the cool fresh air of the wayside bank, and resents an



MARKYATE CELL: CHIEF STAIRWAY LOOKING EASTWARDS.

overdose of artificial warmth by promptly dying. In large gardens Cucumbers and Melons are grown during the summer in pits, and these latter may be made use of for the Violets, adding, if any is required, poor soil to prevent an undue luxuriance of foliage, to the detriment of the flowers. When digging up the Violets from the bed for planting in the frames, a large ball of soil should surround the roots, to minimise as much as possible any check to the progress of the growth. Plant them close together, and remove the lights whenever the weather is warm or showery. The only protection needed is from frost or heavy rains.

I have picked Violet flowers in winter from the permanent bed by protecting it with a framework of wood, 15 inches from the ground. Over

THE PYRACANTHAS.

THE Pyracanthas are bright evergreen shrubs allied to the Cratægus and Cotoneaster families, in which genera they have been included by some botanists. For garden purposes they are distinguished from the Cratægus in being evergreen, and from the Cotoneasters in having thorns on the branches. The Pyracanthas thrive in well-drained garden soils of a light and warm rather than a sticky character. Seeds form a ready method of propagation, and cuttings, made of shoots of the previous summer's growth, root in a cold frame in autumn. Four species and several varieties are in cultivation. They do not transplant readily, and plants should be grown for a year or two in pots, or placed in the permanent positions when small.

Pyracantha angustifolia.—This is essentially an evergreen shrub for a south or west wall, except in the South and West, being the least hardy. In such a position it is, however, a most beautiful shrub, both when freely clothed with corymbs of small white flowers in summer, and throughout the winter when laden with orange yellow fruits. It is very noticeable that the birds leave the fruits of this species hanging when practically all other berry-bearing trees and shrubs are cleared. The species is a native of Western China, and was first introduced in 1899 by Lieutenant Jones. In the *Botanical Magazine*, t. 8345, it is figured as *Cotoneaster angustifolia*.

P. coccinea.—This is the common Pyracantha, a native of South Europe and Asia Minor. It is a very old garden shrub, having been first introduced about 1629. In the open *P. coccinea* forms a large evergreen bush of considerable height, but it is as an evergreen climber that the plant will be familiar to most readers. In early June the long sprays are clothed with corymbs of white flowers, followed in autumn by rich red fruits. The shrub which is such a conspicuous feature on many suburban villas at the present time is the variety *Lalandei*. From *coccinea* it is readily distinguished by the orange red fruits, and is said to fruit more freely. Certainly it would be difficult to crowd more fruits on some of the branches at the present time. The gorgeous colour

of the fruits has evidently caused it to be known by the popular name of the Fire Thorn. Blackbirds and thrushes in some districts clear the bushes so speedily when ripe that in some gardens it is thought worth while to place nets or cotton over them. *Lalandei* is a seedling variety raised about 1874 by M. Lalande of Angers.

When pruning of Pyracanthas is necessary, it should be done in early spring. They stand pruning well, but when cut hard it naturally interferes somewhat with the flowering and fruiting during the coming season.

P. crenulata.—This species was originally introduced from the Temperate Himalayas, and is known as the Nepalese Whitethorn. It is on the borderland of hardiness and, except in the South and West, should have the protection of a south or west wall. The plants are not so vigorous in growth as the other Pyracanthas, and are thorny bushes with white flowers and orange yellow fruits.

HART'S - TONGUE FERNS (SCOLOPENDRIUMS).

BY E. H. JENKINS.

I SUPPOSE there are few indeed who would take exception to the remark that, among hardy Ferns, the Hart's-tongue, as the *Scolopendrium* is commonly called, occupies a place entirely unique. Happy in the cool, moist loam of many a ditch bottom and ornamenting the sides thereof in its own inimitable way, this accommodating Britisher would appear almost as content when the crown of the once tiny sporeling, having reached a more mature stage, is seen oozing out, as it were, from the veriest crevice of almost vertical sandstone rock, colonising there in its dozens or hundreds. True, not every gardener has a ditch bottom, or even vertical sandstone rock at his disposal, and, in truth, they are not essential. They serve to show, however, the part played by certain conditions, *e.g.*, moisture and uniform coolness, the things that really matter in the cultivation of this fine race of Ferns, and which, moreover, are not impossible of imitation.

During recent years, on some of the more elaborately arranged rock garden exhibits these Hart's-tongues have been seen to advantage in the cool recesses of rocky caves, where, sprayed with the drip from above, they have looked their best. Or the hardy fernery, so to speak, has been enacted under trees, the twain suggestive of some of the diverse uses to which these plants may be put. Those who have neither a rock garden nor a hardy fernery in which to grow them may still cultivate the best in pots or pans with quite a full measure of success, as the recent exhibits of Messrs. H. B. May and Sons, Edmonton, and Mr. Amos Perry, Enfield, have demonstrated. Indeed, Fern-lovers owe the specialists named no little debt of gratitude in bringing these plants to the front, and few exhibits attract greater attention. A great charm about the Hart's-tongue not yet mentioned is the cool, refreshing greenery of its fronds, than which nothing is more welcome on a sultry summer's day. It is, however, good at all seasons, though best of all perhaps as the mature stage of the season's growth is reached, and doubly welcome because retained long after the more truly deciduous kinds have completed their year's work.



THREE PYRACANTHAS.

From left to right: *P. angustifolia*, *P. coccinea Lalandei* and *P. crenulata*.

this mats were put, and unless the weather is exceptionally severe, the plants have not refused to flower freely. As to varieties, Princess of Wales is unquestionably the finest of all. Each flower is larger than a shilling and the stems are very long, thus enabling it to be used for table decorations and in other ways. *Wellsiana* is smaller in growth and bloom, but the colouring is very pretty, a blue with a trace of bronzy red. If only one single Violet can be grown, choose Princess of Wales; and of the double varieties, Marie Louise, though some prefer Lady Hume Campbell, which blooms several weeks later. Then there are the double white Comte de Brazza, the Neapolitan and Mrs. Astor, all having the attributes of fragrance and pretty colouring.

Doubtless among the numerous readers of *THE GARDEN* there are not a few who know something of the undying interest of the hardy fernery under glass, and to such the value of the Hart's-tongue Ferns will be well known. To those who have not grown them thus it may be an encouragement to know that without fire-heat and at a minimum of cost and labour they may be grown to perfection in a house with preferably a north or north-westerly aspect, where few flowering plants would succeed owing to lack of sunlight.

Quite one of the most interesting facts in connection with the Hart's-tongue Fern is centred round the wealth of variety which has arisen from a single species, and I have read somewhere that some 400 or more varieties have been described. Modern lists for the most part are, however, content with giving a few dozen sorts, of which the crispum forms are, to my mind, the most handsome. One of these, *Scolopendrium vulgare crispum speciosum* (see illustration) was exhibited before the Royal Horticultural Society on October 26 by Mr. W. B. Cranfield, Enfield Chase, when it was awarded, as it justly merited, a first-class certificate. This magnificent example, some 3 feet across, with fronds probably 2½ feet long, was a great attraction, as much by its imposing character as a whole as the ample Elizabethan-like ruffles which constitutes the margins of the fronds.

A good companion to this is *S. v. c. grande*, recently well shown by Messrs. H. B. May and Sons, and both are great advances—the topmost rung of Perfection's ladder, as it were—on the better-known crispum. *Latifolium Robinson's* variety and *robustum* are other bold and handsome forms of the crispum set. Next to these in point of popularity I should place the crested forms, those of the *cristatum* and *ramo-cristatum* sections more particularly, whose fronds are terminated by a heavy tassel or crest. *Coolingii*, *Kelwayii*, *grandiceps*, *ramo-cristatum* and *corymbiferum* are some of the best marked of these, and as such indispensable to any collection. There are, of course, many others, together with divisions and subdivisions of the group, of which the exigencies of space preclude a mention even by name. Happily, however, the plants retain their characteristics practically throughout the year, and those interested may therefore make a selection at any convenient season.

MY LITTLE GARDEN IN KENSINGTON.

HAVE any of my London readers discovered the autumn Crocus yet? It has burst upon me this year as a revelation. I was induced by some particularly persuasive catalogue to include a hundred in my order for bulbs, and was just in time to plant them, on my return from a summer visit spent in the country, the third week in September—though all the catalogues recommend August planting. And now, as I write, a hundred lovely blue faces smile up at me in the autumn sunshine, having struggled each morning through the fog without losing a particle of their beauty.

blue, shaded buff, stigmata brilliant orange; and so on to the extent of about twenty different kinds. They are reasonably cheap, too, my own blue hundred having cost me but 3s., though they vary in price from that to as much as 18s. a dozen.

Colchicums I have also grown this year in an odd corner near my drawing-room window, and though each bulb did not flower, those that did threw up about six or eight flowers in a clump, which made quite enough show to justify the experiment. These should, like the autumn Crocuses, be put in in August.

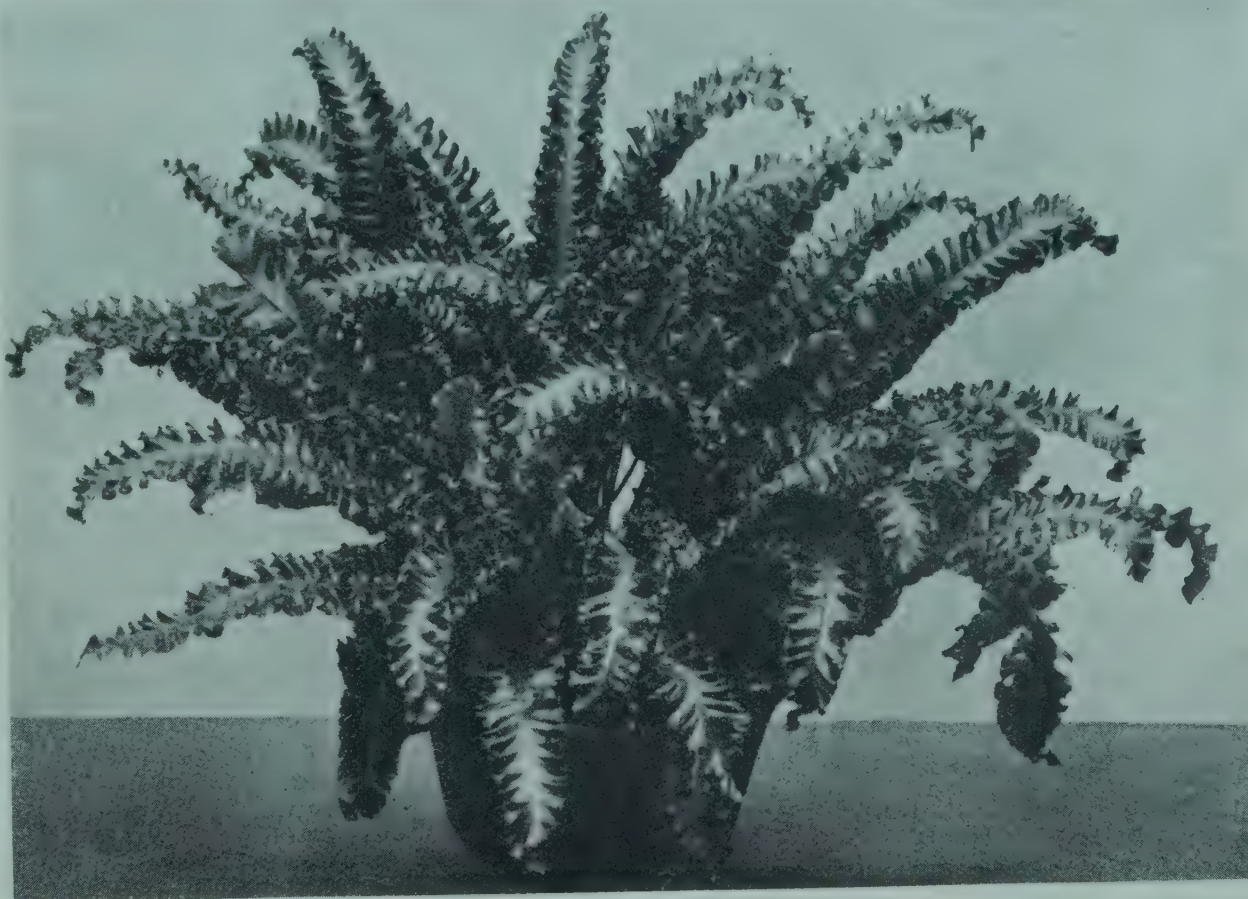
Since I am prating of bulbs, I am in danger of becoming boring on the subject of English Iris, which can still be planted, though earlier is best. Who that has a garden does not know the exasperation of a clump of prosperous-looking, vigorous German Iris (other than the common purple one), that yet will only give you a flower when its caprice

permits, which might be only once in some years! It is like having a man next you at dinner whom you know to be full of humour and other delightful characteristics, who yet sits dumb beside you, you not having had the good fortune to strike a note that will let loose his riches. It seems almost too good to be true, then, that you can have hundreds of glowing Irises growing close together with wonderful effect in July, when they give the one necessary touch to a summer border, and for a ridiculously small sum—my own costing 2s. 6d. a hundred, each bulb giving

always two and sometimes three blooms each. Plant these fairly deep in about 3 inches of coarse sand and cover them well up with sand; mulch with a top-dressing of manure to keep them warm in winter, and I can promise that you will be thankful for having taken this trouble—so delicious will be the sheet of all that is most beautiful in blues and mauves and splashes of yellow. The Spanish Irises do less well, every bulb not invariably flowering, but they have the advantage of flowering some ten days earlier than the English Iris. I myself plant them all in the same beds, which then flower continuously from early June to well on into August, giving a maximum of pleasure for a minimum of labour, always an advantage in London, where labour such as this, involving a certain amount of knowledge, must usually be done by one's self.

HELEN F. R. SHARPE.

23, Pembroke Road, Kensington.



A NEW HART'S-TONGUE FERN: *SCOLOPENDRIUM VULGARE CRISPUM SPECIOSUM*.

They are lasting well, and some of the bulbs are putting up a second and third flower. I bought *Crocus speciosus*, since I have not yet outgrown my passion for blue in the garden; but I am now willing to believe other kinds are equally beautiful, and next year there will certainly be as many as my small garden will accommodate. Many of the catalogues have a separate list of autumn-flowering bulbs, a useful idea that saves much searching in garden books in a generally vain attempt to collect details of time of flowering, colour, and time to plant—all details that worry the ignorant, among whom I myself loom large and dense. I see, then, in my pet catalogue that *Crocus cilicicus* is pale blue with yellow tube (the tubes are particularly bright in the autumn Crocus) and veined purple, blooms September; *Crocus hyemalis*, silvery white, striped rich blue black (does it not sound delicious?), blooms winter; *C. Imperati*, violet

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Late Muscat Grapes.—A well-appointed Grape-room is an invaluable asset in private establishments. Those favoured with such a convenience can cut their Grapes any time between this date and the end of the year, and provided they are perfectly ripe they will keep just as well in the Grape-room as if left on the Vines. The Vines can then receive attention in regard to watering. Any renovation or extension to borders can also be attended to. Unless the houses are needed for sheltering plants, they should be thrown wide open, so that the Vines may have a period of absolute rest.

Midseason Vines.—The pruning and cleaning of Vines which are at resting must be persevered with. Young Vines may be pruned to two buds, but in dealing with very old Vines it is prudent to leave three or four buds, or even more. After pruning young Vines, the newly made cut should be painted with styptic as a precaution against bleeding when they are started in the spring. Vines which are infested with mealy bug must be given a thorough cleansing. All loose bark should be carefully removed and the rods thoroughly scrubbed, using a strong mixture of soft soap and sulphur. The vineries may also be fumigated with sulphur. Proceed with the work of extending and renovating borders.

Plants Under Glass.

Richardias.—A few of the strongest plants may be selected and placed in a warm house if they are required to flower early. As a rule, Richardias are not required until the Chrysanthemum season is over. The main batch must be kept in a cool house near to the glass. Fumigate them occasionally to keep them free from aphids.

Chrysanthemums.—When these have finished flowering, cut them down and place the stools near to the glass in a light house. The object now is to procure clean, sturdy cuttings. Carefully go over the stock with a view to discarding useless varieties. Prepare the soil and place it in a heap till the time arrives for inserting the cuttings.

The Flower Garden.

Plants in Cold Frames.—Plants which are to winter in cold frames must be occasionally overhauled. Remove dead and mildewed foliage, and stir the soil between the plants with a pointed stick. Whenever the weather will allow, the frames must be liberally ventilated, or many plants may be lost if this matter is neglected. The plants, too, will suffer during severe frost if they are not thoroughly hardened.

Protecting Tender Plants.—Plants which are known to suffer during times of hard frost must now be protected. A quantity of Bracken and Heather should be put in a dry place in readiness for this purpose. Some substitute for Archangel mats must be found this season. Branches of evergreen, especially those of the Yew, may be made use of to protect many of the less hardy subjects. Ashes or Coconut fibre placed round the base of some of the less hardy herbaceous plants forms an adequate protection.

Christmas Roses.—These are always in favour at Christmas-time, and an effort should be made to have a good quantity of blooms by that date. Place frames over them now, and during times of severe frost put some protecting material over the glass. Keep a sharp look-out for slugs, or many of the flower-buds will be spoilt.

Roads and Paths.—To keep these in good order, a portion of the work of remaking or mending must be attended to every season. Any defects in the drainage must also be made good now. Grass verges must be cut and levelled where this is necessary.

The Hardy Fruit Garden.

Peaches and Nectarines.—In some districts Peaches and Nectarines flourish out of doors, while in others they are quite the reverse. Here, on a chalk subsoil, they have never been a success outdoors. Where they are known to succeed they should be grown largely, as any surplus fruits

may be bottled, and these will be found of great value during the winter months. The present is the most suitable time for planting trees. Have the stations thoroughly prepared before the trees come from the nursery, and lose no time in planting them when they arrive. Examine the roots carefully and cut back those which have been damaged, also those which are too strong. Plant firmly and keep the roots near the surface. Place a mulch of short manure over the rooting area when the planting is finished.

The Kitchen Garden.

Seakale.—When the foliage has died down, a few roots may be placed in the forcing-house. Plant the crowns fairly close together and thoroughly water them in. They are not particular in regard to soil. Old potting soil or that which has been taken from a Melon-house will be suitable. It is necessary to have a little warmth under the roots, which may be provided by a hotbed or hot-water pipes. The crowns must be kept quite dark.

Rhubarb.—A few roots may be placed in heat. Rhubarb may be readily forced in a Mushroom-house or beneath a stage in a house which can be kept warm and moist. If two or three roots are placed in heat every fortnight or three weeks, a good supply will be assured.

Tomatoes.—The winter fruiting plants will now be ripening their fruits, and in order to keep up the supply as long as possible, every attention must be given to cultural details. A dry atmosphere with a constant circulation of air, more or less according to outside conditions, is essential. Some of the foliage may be removed if it tends to obscure light. If there is room for a little fresh soil on the surface of the pots, this should be given to encourage fresh roots. A temperature of 55° to 60° should be maintained.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

The Flower Garden.

Pæonies.—Where borders or beds are to be planted with Pæonies, the ground should be treated to a very liberal dressing of farmyard manure. As these plants do not like being disturbed frequently, it should be deeply trenched and given a quantity of bone-meal. Should frost delay the planting at this time, try to get them put in at the first opportunity, as they commence emitting roots very early in spring.

Cannas which may have been lifted to make room for spring bedding and heeled in outside to mature their growth must now be brought indoors for protection from frost. They may be partly cut over and placed underneath a cool greenhouse stage, or in some shed which is not too dry or warm, which would excite the plants into premature growth.

Bamboos.—These handsome plants are not hardy in many districts, so that where they are planted out in unfavourable sites temporary protection is necessary during winter and early spring. Wind is usually more harmful to these plants than frost. Where the soil is very wet, which condition suits the Bamboo during summer, the plants are sometimes cut down by 20° of frost. Again, in more sheltered positions—for instance, growing among coniferous trees—they remain unharmed with 25° of frost. Rather than try to cover the actual plants, a screen of evergreen branches should be erected to surround them.

Plants Under Glass.

Azalea indica.—This can now be forced in quantity if required for early work. If placed in a stove where it will receive plenty of moisture from the atmosphere, it comes quickly into bloom. For general purposes the Indian Pearl variety is best. Where a number of plants are grown, those which have become too large or developed too much bare stem should be chosen for this work, leaving the more shapely and better plants to flower in their natural season.

Hyacinths.—The Roman Hyacinths can now be brought quickly into flower when placed in

heat. The Dutch varieties, however, cannot be flowered so early, unless they are the specially prepared bulbs which have been obtainable for the last two seasons. Where these were potted in August, a portion of them may now be placed in heat; but as they can only be had in bloom at their earliest by Christmas, forcing should be gentle.

Tulips.—These are able to withstand more heat than most bulbs when being forced. The greatest difficulty with very early flowers is to get a sufficiently long stem or growth. Such fine varieties as Proserpine and Mon Tresor give beautiful, large blooms but miserably short stems. This trouble can be largely overcome if, when the bulbs are put in heat, a good thick layer of moss is placed over them to induce the stems to lengthen. As growth proceeds more can be added, so long as the foliage and flower-buds are not allowed to bleach.

The Kitchen Garden.

Rhubarb.—In view of possible frost coming, a number of crowns should be dug up and left lying on the surface fully exposed. Roots which have not been subjected to frost do not respond readily to any amount of bottom-heat.

Potatoes.—Seed Potatoes should be examined occasionally to see there are no diseased or decaying tubers allowed to remain which might contaminate others. The tubers which are to be grown for very early supplies in frames or pots should be picked out and arranged in shallow trays, thus allowing them to develop strong sprouts. These tubers can now be placed where they will get slightly more light, but not where the atmosphere is at all warm.

Broccoli.—Where there is danger of injury by frost to any Broccoli which are developing heads, the plants can be lifted with a fair amount of soil attached to the roots and placed in deep frames. This is more necessary in wet districts and where the soil is of a clayey nature.

Broad Beans.—A sowing can now be made for the early crop next year. A border with some protection is best, but the plants are able to stand a reasonable amount of exposure. Where the grower has plenty of available room indoors for raising young plants during early spring, this sowing will not be required at this date, as young, vigorous plants resulting from an early indoor sowing, if planted out in good time, will generally bear as soon as, if not before, those sown outdoors at this season.

Digging and Trenching.—For such a crop as Onions it is of great advantage to prepare the ground beforehand in the early winter, leaving the soil as rough as possible, thus exposing a greater surface to the beneficial influence of frost, rain and snow. A record should be kept of each part of the garden as it is trenched, so that no section is omitted in its turn, which should be every third year at the least.

The Hardy Fruit Garden.

Wall Trees.—Pruning can be commenced on the trees as soon as the leaves have fallen. The trees can then either be nailed up or, if a trellis exists, the previous ties should be looked over to see that all are in sound condition. Such trees as Morello Cherries, which call for more expert training, should be attended to before severe weather arrives, as then it is not an easy matter for the person tying to train the trees as they should be trained.

Fruit Under Glass.

Strawberries in Pots.—To have ripe fruit early in March, a start must be made by placing the plants indoors by the end of the present month. If the crowns are thoroughly ripened and have been exposed to a few degrees of frost, growth will be stronger and early. Where a house or pit cannot be devoted to them, they may be placed on a shelf in an early vinery or Peach-house. Any weeds which may be growing should be removed when the pots are being washed before bringing them indoors. Much water will not be required until January, after growth has fairly started. At the same time, the plants should be looked over frequently, as allowing them to get too dry would be just as injurious.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)
Castlemilk Gardens, Lockerbie, N.B.

LATE-FLOWERING ALPINES.

By Miss Ellen Willmott, V.M.H.

THE interesting lists of alpine now blossoming in various rock gardens inspired me to look round mine to see if it could also have any pretension to gayness in early November.

I noticed the following plants with not only a solitary one or two flowers, but several, and in some instances many: *Viola rothomagensis*, *V. floraiensis* and others, *Saxifraga Fortunei*, *Omphalodes Luciliae* and *O. nitida*, *Geum Borisii*, *G. chilense*, *Sedum Sieboldii*, *S. ternatum*, *S. turkestanicum*, *Liatrix spicata*, *Zauschneria californica*, *Erigeron mucronatus*, *Saponaria ocymoides*, *Campanula garganica*, *C. portenschlagiana*, *C. Stansfieldi*, *Erodium Manescavi*, *E. olympicum*, *E. willkomianum*, *Lychnis Lagascae*, *Phlox G. F. Wilson*, *Satureia pygmaea*, *S. montana*, *Convolvulus sabatius*, *C. cantabricus*, *C. lunoides*, *Verbena venosa*, *V. chamaedrifolia*, *Dianthus croaticus*, *D. gallicus*, *D. inodorum*, *D. aridus*, *D. glutinosus*, *D. puberulus*, *D. sylvestris*, *D. microlepis* and *D. m. alba*, *Geranium grandiflorum*, *G. webbianum*, *G. wallichianum*, *Oxalis lobata*, *O. valdiviensis*, *Achillea Ageratum*, *A. Kellerei*, *A. Fraasi*, *A. tomentosa*, *Lithospermum graminifolium*, *Edraianthus divaricus*, *Cyclamens*, *Linaria alpina* and *L. a. rosea*, *Potentilla* Miss Willmott, *Helianthemums* in many varieties, *Anthyllis Vulneraria rubra*, *Arctotis aureola*, *Plumbago Larpenae*, *Ceratostigma willmottiana*, *Rosa pumila*, *Scabiosa graminifolia*, *Alyssum tortuosum*, *Cytisus schipkaensis*, *C. arleyanus*, *Centaurea speciosa*, *Alyssum rostratum*, *Scutellaria indica japonica*, *Lactuca perennis*, *Modiola geranioides*, *Tunica Saxifraga*, *Ranunculus creticus*, *Carlina acaulis*, *Iberis saxatilis*, *Primula capitata*, *P. lichiangensis*, *Sideritis hyssopifolia*, *Senecio Cineraria*, *Origanum hybridum*, *Silene swertiaefolia*, *Heliotropium anchusae-folium*, *Polygonum sphaerostachyum*, *P. capitatum*, *Verbascum Purpuri*, *Nepeta prostrata*, *Urtica acaulis*, *Pratia arenaria*, *P. angulata*, and several others.

One of the greatest charms of a rock garden lies in the succession of flowers always following each other and never entirely ceasing, however unfavourable the weather may be. The variety of aspect and position affords such protection and encouragement that plants cannot but respond. It is for this reason that even a small amount of elevation and broken surface possesses so many advantages over the flat bed.

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

Offices: 20, Tavistock Street, Covent Garden, W.C.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

SIX VARIETIES OF CHRYSANTHEMUMS (B. F. J.).—The following varieties flower outdoors from the early part of October to the middle of November, and all are splendid for lifting and potting when the buds are formed: *Caprice du Printemps*, rosy pink, tipped white; *Kathleen Thompson*, chestnut crimson, tipped gold; *Red Cap*, terra-cotta red; *White Cap*, pure white; *Surprise*, rosy cream; and *Dr. G. Barre*, reddish purple. Firms advertising *Chrysanthemums* in THE GARDEN would supply you with good cuttings or plants.

LIFTING GLADIOLUS CHILDSII (E. M. H.).—Your plants appear to be exceptionally late in flowering, the result, probably, of a proportionately late planting. So long as severe frosts are not experienced, however, and provided also that the bulbs (corms) are less than 4 inches deep, little harm will ensue at the moment, and they may be left a week or two longer with impunity. What is most likely to happen is that small, inferior-sized corms will result as the outcome of the late growth and flowering, which in turn will militate against a good display next year. You do not say when the bulbs were planted; but, assuming they were planted in March—their proper season—they should have been in flower by the end of August, when all would have been well. We can only advise you to leave them in the ground as long as possible and protect against severe frost.

THE GREENHOUSE.

AURICULAS AND PRIMULA MALACOIDES ATTACKED (North Cotswold).—The appearance of the leaves sent suggests the attack of thrips, but your description suggests white fly. We do not, however, see any of the scale-like larvae of that insect. Your best plan would be to fumigate with one of the recognised fumigants, and to dip the plants in a sulphur and soft soap dip made by taking a handful of soft soap and kneading thoroughly into it some flowers of sulphur, afterwards dissolving the mixture in 1½ gallons of hot water.

MARGUERITE MRS. F. SANDER (L.).—Plants of this *Marguerite* which have been bedded out this year are not likely to give satisfaction if kept over for another season. In order to obtain a stock of good bedding plants for next year, cuttings should have been taken towards the latter part of August or the first half of September, at which time they will readily root if put in a cold frame and shaded from bright sunshine. Plants so obtained do not take up much room during the winter months, which is often a great consideration, and if the points are pinched out when large enough, by the bedding period they form neat little specimens that will grow away freely when planted out. Plants of this *Chrysanthemum* that have been flowering outside during the summer are sometimes lifted and potted for winter flowering, but they are seldom worth the trouble taken. In any attempt to deal with the plants so as to give them a chance for another season's bedding, the better way will be to lift them, shorten the roots and tops, and put them in comparatively small pots, giving them a good place in the greenhouse. The roots are, as a rule, straggling and not well furnished with fibres, so that they would suffer too much from the check of removal to support the whole of their tops.

FRUIT GARDEN.

PEAR LEAVES FOR INSPECTION (Sunflower).—The Pear trees are attacked by the Pear-leaf-blister mite (*Eriophyes pyri*). Spray them in winter with the Oregon wash, made with caustic soda, lime, sulphur and salt, according to the formula we have several times given in these columns.

SEEDLING APPLES (G. Young).—There is always a special interest attached to those plants grown by one's self from seed, and therefore we suggest that you graft a few and let the others (as many as you choose) grow on their own roots. They will fruit right enough some time, but not nearly so soon as those grafted.

FIG TREE TO PRUNE (G. S.).—The way to prune a Fig tree is very simple. All you have to do is to cut out the thinnest and poorest of the shoots where they appear to be overcrowded. The foliage of the Fig is so large that if the branches are not well thinned out at pruning-time

in winter, the tree in summer becomes overcrowded and the branches of the present year's growth which produce the fruit of next year fail to ripen and bear good crops the year following in consequence.

KITCHEN GARDEN.

FORCING SEAKALE (P. J. S.).—Make your fermenting bed a foot larger all round than your frame. This will enable you later on to add linings of fermenting materials round your frame to keep up its warmth. Retarded roots are not to be had. Good roots of this year's growth are available, and they should now be introduced into moderate heat. But, of course, the produce will be small and weak compared to that grown later under the same conditions. Your best way will be to plant the roots close together in large pots or boxes, and plunge in the frames as soon as the bottom-heat has gone down to 70° Fahr. Keep up a good warmth in the day with sun-heat, and at night by covering the frame with mats.

MISCELLANEOUS.

THE SEMI-DOUBLE FLOWERED PINK PEACH (L. S.).—This is only of use as an ornamental tree. It flowers so early that its blossoms are generally destroyed by frost, so that it seldom bears fruit. We have partaken of the fruit with no serious consequences, but generally it is not thought of much account.

THE CAPER SPURGE AND THE TRUE CAPER (O. G.).—The fruits of *Euphorbia Lathyris*, the *Caper Spurge*, possess mild poisonous properties, and certainly cannot be used for *Caper sauce*. Some use was formerly made of a drug, *Euphorbium*, obtained from several species of *Euphorbia*, as an emetic and purgative, but, being violent in action, is very rarely used in medicine at the present day. The true *Caper* is *Capparis spinosa*, a shrub cultivated in Sicily and France.

MALFORMED HONESTY, AND OTHER QUESTIONS (J. S.).—The Onion was too far gone to enable us to say what the fungus was, and no fruit was visible on the leaves of the *Canterbury Bell*. The fungus on the *Goat's Rue* was *Cladosporium herbarum*, a very common fungus. You will notice the hyphae were somewhat coloured, not clear as in *Ramularia*. The divided septa of the *Honesty* are very interesting, and we must congratulate you upon your eye for things somewhat out of the ordinary, for they could not have been very conspicuous.

LAYING OUT A GARDEN (W. Willmott).—There is much that you might introduce into the garden to make it attractive, but we fear with the space at disposal there is not much room for plants for profit, and you give us no idea as to whether you possess any practical knowledge of horticulture. With a 7 feet or 8 feet high brick wall on the south side, cordon or other fruit trees might be profitably grown, with, in addition, a row of dessert Apples in the border 8 feet or so away. We are assuming the land is suitable for fruit-growing, as you suggest a row of fruit trees, though you say nothing about the nature of the soil or its depth. Planted 10 feet asunder, the border would accommodate fifteen trees, say, two each of *Plums Victoria*, *Monarch* and *Langley Bullace*; two each of *Apples Lane's Prince Albert*, *Allington Pippin* and *Wellington*, and three of *Cox's Orange Pippin*. The north-west border might be planted with a collection of herbaceous plants for cutting, with *Roses*, *Carnations*, *Pinks* and *Spanish Irises*. The row of *Poplars* planted at this side will be a drawback to the border if not kept in check. The kitchen garden space would be best planted with *Gooseberries* and *Black* and *Red Currants* at the margin, and otherwise cropped in season with *Carrots*, *Turnips*, *Beet*, *French Beans*, and *Peas* for succession.

CEANOTHUS AND LITHOSPERMUM (C. A. P. O.).—The former may be increased by layers or by cuttings of the young shoots inserted in slight heat from June to August. It is excellent as a wall plant, and shows to good advantage in a group on the lawn. The shrubbery is not the best place for it, unless it be one devoted to choice plants. The *Lithospermum* may be propagated by means of inch-long unflowered pieces detached with a heel from the parent stem and inserted in July or August, or by means of ordinary—that is, joint-made—cuttings of quite young wood. The old flowering pieces are valueless. In the former month a cold frame or hand-light would suffice, though they root quite well in a greenhouse temperature of 45° or 50° if covered by a bell-glass. Sandy or peaty soil is best. There are two forms of this plant—the type, which has dark-coloured flowers, and that known as *Heavenly Blue*, which, while more free in flowering, is also of a lighter blue colour and generally the better plant. If you could send us a sample of the water weed in a tin box, we should be better able to advise you concerning its destruction. Sulphate of copper would be injurious to other water plants, and fatal to fish, did such exist.

NAMES OF FRUIT.—R. H. B.—*Cornish Gilliflower*.—L. C. F.—*Catville Blanche*.

NAMES OF PLANTS.—A. L. N.—1, *Muehlenbeckia varians*; 2, *Eucalyptus globulus*; 3, *Pyraecantha coccinea*; 4, *Lycesteria formosa*; 5, *Escallonia rubra*; 6, *Tropaeolum tuberosum*; 7, *Ailanthus glandulosus* (Tree of Heaven).—C. A. P. O.—1, *Berberis acuminata* (China), 3 feet high at present, but likely to grow taller. It is a new plant, and the size to which it develops in this country is not known; 2, *Berberis Hookeri* (Himalaya), 3 feet to 4 feet.—J. M. N.—*Erica stricta*, a native of South-Western Europe. We are interested to know that a large bush of this species has been in the same place for over twenty years.—H. C. M., *Jersey*.—*Datura Stramonium*, or the *Thorn Apple*.

SOCIETIES.

NATIONAL CHRYSANTHEMUM SOCIETY.

For the first time in the history of this society the annual exhibition was held at the Royal Horticultural Society's Hall, Vincent Square, Westminster, S.W., on Thursday and Friday, November 11 and 12. The building was well filled with a beautiful array of Chrysanthemums, in which all types were charmingly represented. The Japanese and singles were especially good, and we doubt whether they have ever been exhibited in better form and condition. The displays of the trade specialists were remarkably good, and were most artistically disposed. To Mr. R. A. Witty, the secretary, much credit is due for the excellence of the arrangements. The show closed at six o'clock each day, owing to the new lighting arrangements prevailing in the Metropolis.

TRADE DISPLAYS.

The trade made an excellent framework to the show with their very handsome groups, each exhibitor being allowed a space of equal dimensions.

Messrs. Clay and Sons presented a gold medal for the best miscellaneous exhibit of Chrysanthemums, the contest was most keenly fought, and the judges awarded this premier medal to Mr. Philip Ladds, Swanley Junction, Kent. His group was superbly disposed, and included Japanese blooms of splendid quality, singles as fine as we have ever seen them, and beautiful decorative sorts. Arranged and edged with foliage plants the effect was very striking. A large gold medal was also awarded to this group.

Messrs. W. Wells and Co., Merstham, Surrey, also showed extremely well, winning a large gold medal for their bold, attractive group. Huge Japanese Chrysanthemums were shown, such as Queen Mary, Mrs. R. Luxford, William Rigby, Mrs. R. C. Pulling, Mrs. E. C. Tickle, Edith Cavell and Daily Mail. Single and decorative sorts were also exhibited in this fine group.

Mr. Norman Davis, Framfield, Sussex, won a gold medal for an artistically arranged group of Japanese, singles, incurved and other types of the flower. Handsome foliage plants were beautifully interspersed, and the effect was very fine indeed.

To H. J. Jones' Nurseries, Limited, Lewisham, S.E., a small gold medal was awarded for a group that seemed to lose some of its effect by the use of a background of white paper. Large Japanese, incurved, single, Pompon and decorative sorts were disposed in pleasing fashion. There were many dainty things in this exhibit, and everything was very fresh. This was a splendid representative display.

A silver-gilt medal was awarded to Messrs. W. J. Godfrey and Son, Exmouth, Devon, for a table group of singles of a very varied and interesting character.

A small but effective table group of singles was shown by Mr. A. Robertson, 18, Abbey Road, St. John's Wood, N.W. The flowers were set up in Bamboo stands and vases most effectively, and the display was awarded a silver medal.

The Misses Price and Fyfe, Birchgrove, East Grinstead, had a specially bright and attractive table group of single Chrysanthemums. Miss Doris Hilder, L. Lawrence, Miss Goodburn and Max were especially noteworthy. Silver medal.

Messrs. Hobbies, Limited, Dereham, had a representative group of single Chrysanthemums, Roses, Dahlias and fruit, for which a large silver medal was awarded. The Apples were especially handsome and of good quality.

CUT BLOOMS.—JAPANESE.

The class open to affiliated societies for twelve vases of cut blooms found only one competitor, and first prize was awarded to the Finchley Chrysanthemum Society for a capital representation of large Japanese incurved. Singles and Pommoms were shown very well. The premier cut bloom class was one for thirty-six blooms of Japanese, distinct, and there were five exhibitors. A handsome series of blooms gained first prize for Mr. T. Stevenson, gardener to Mr. E. G. Mocatta, Woburn Place, Addlestone. Mrs. J. Gibson, Bob Pulling, Master James, Lady Talbot, Rosamund, A. F. Tofield, Mrs. G. Drabble, Frances Rowe, Miss A. E. Roope, Mrs. G. Lloyd Wigg, W. Turner, Mrs. H. Kemp, Mrs. R. Luxford, Mrs. R. C. Pulling and many other fine varieties were exhibited. Second prize was awarded to Mr. Jewell, gardener to Mr. T. H. Mann, Rotherfield, for a heavy lot of less interesting blooms. Third prize was secured by Mr. M. Sargent, gardener to Mr. G. L. Wigg, Rockshaw, Merstham, for a fresh lot of high quality flowers.

The nine exhibitors in the class for twenty-four Japanese blooms, distinct, made a remarkably fine display, all of the exhibitors showing well. Here again Mr. T. Stevenson led with a very heavy lot of blooms of the highest quality. We have never seen better Mrs. R. C. Pulling, Mrs. H. J. Stratton, Master James, Undaunted, Queen Mary, Mrs. E. A. Tickle, Mrs. Thomas Stevenson, James Gibson, Miss A. E. Roope and Mrs. G. L. Wigg. Mr. Sargent was placed second, his flowers being less highly coloured than those in the leading exhibit. A very commendable series gained third prize for Mr. H. C. Gardner, gardener to Lord Foley, Ruxley Lodge, Claygate. Bob Pulling, Rosamund and Queen Mary were very handsome.

The ten entries in the class for twelve Japanese blooms made a good show, and here again Mr. Stevenson excelled with a very even board of fine quality blooms. Mrs. J. Gibson, Lady Talbot, Miss A. E. Roope, Queen Mary and Mrs. R. C. Pulling were superb. A splendid series secured second prize for Mr. G. H. Clack, gardener to Lady Esmé Gordon, Paxton Park, St. Neots. Third

prize was won by Mr. H. Lloyd, gardener to Captain C. Wiener, Ewell Castle, Ewell.

Twelve exhibitors staged in the class for six blooms of Japanese, distinct, the first prize in this case being awarded to Mr. T. Pateman, gardener to Mr. C. A. Cain, J.P., Node Gardens, Welwyn, Herts, for a very heavy lot of grand blooms. Second prize was awarded to Mr. J. Lamon, gardener to Mr. C. W. Mann, Ravenswood, Bexley, for a clean lot of flowers; and to Mr. G. H. Clack third prize was placed to his credit for handsome blooms.

The eight exhibits in the class for one vase of six blooms of white Japanese made a very welcome show of chaste blossoms. First prize was won by Mr. T. Pateman with lovely blooms of W. Turner; second prize was awarded to Mr. H. Blakeway, gardener to Mr. W. H. Allen, Bromham House Gardens, Bedford, with good examples of Queen Mary; and third prize was placed to the credit of Mr. A. Smith, Convent Gardens, Southampton Lane, S.W., with Mrs. Gilbert Drabble.

Six competitors in the class for one vase of six Japanese blooms, one variety of a yellow colour, made a distinctly good show. Superb examples of Mrs. R. C. Pulling gained first prize for Mr. H. Blakeway; second prize was secured by Mr. M. Sargent with the same variety; and with grand specimens of F. S. Vallis, Mr. T. Pateman was a good third.

CUT BLOOMS.—INCURVED.

Three exhibits in the class for twenty-four incurved blooms, distinct, were of fair order, by far the best coming from Mr. E. Dore, gardener to Mr. H. Bennett, Abbeyfield, Bickley, Kent, with a good series of well-finished blooms. Maritana, Clara Wells, Romance, Pantia Ralli, Percy Wiseman, Mont Brunn, Mrs. Barnard Hankey and Charles Hall were some of the better flowers.

SINGLES, POMPONS, &c.

A grand class was that for twelve vases of disbudded blooms, and this included both double and single flowers. Japanese were Yellow Moneymaker, T. Page, Pioneer (incurved), Crimson King, Freda Bedford and E. Cox. Singles were, Ceres, Merstham Jewel, Yellow Merstham Jewel, Max, Molly Godfrey and Sandown Radiance; a superb exhibit that well deserved the first prize it gained. This came from Messrs. Cragg, Harrison and Cragg, Heston, Hounslow, Middlesex. The same firm secured leading honours for six vases of Anemone blooms, showing Aphrodite, their new mauve pink variety. Second prize was won by Mr. P. J. Broom with distinct sorts, such as Mr. H. Eland, Moreen Jones, Mrs. Shimmins, J. Bunyan, Delaware and Mme. C. Lebecqz.

Pommoms were charming and there was a goodly array of them. First prize went to Mr. J. W. Hussey, Malforch Lodge, Exeter, having overlarge blooms, which lost considerably thereby. A pretty series secured second place for Mr. F. Fitzwater, gardener to Mr. C. Urban, Bushey Lodge, Teddington, Black Douglas, Prince of Orange, Mme. Elise Dordan and William Westlake being charming. Mr. A. Robertson won third prize.

The class for a vase of singles, arranged for decorative effect, is always an interesting exhibit. Mr. T. Stevenson led with a heavy, compact arrangement that pleased few. A charmingly arranged vase of good flowers and set up most artistically won second prize for Mr. D. B. Crane, Archway Road, Highgate. Many visitors preferred the latter. Mr. A. Robertson was third.

SOUTHAMPTON CHRYSANTHEMUM SHOW.

A VERY beautiful exhibition of flowers, fruits and vegetables was held recently in the Pier Pavilion. There was a Red Cross stall; many exhibits were also sold to supplement this effort, and a large sum was realised.

The non-competitive exhibits of Messrs. Toogood and Sons, Southampton, who staged a fine collection of vegetables; Messrs. B. Ladhams, Limited, of Shirley, who staged remarkably fresh herbaceous cut flowers; Mr. E. Wills, Southampton, who had a charming display of stove and greenhouse plants; and Messrs. W. H. Rogers and Son, Limited, who put up a big collection of Apples and Pears, added much to the attractiveness of the show.

COMPETITIVE CLASSES.

Plants.—For six plants of Chrysanthemums suitable for conservatory decoration, Mr. S. Joyner, gardener to J. C. E. D'Este, Esq., was first. Mr. Allan Cooper had the best six plants of singles, and Mr. S. Joyner the winning four bush plants; these were also awarded the society's first-class certificate. This exhibitor won the cup and medal for five plants, Japanese or incurved, bearing not fewer than four blooms on each. Again he won in the class for three plants.

Vase Classes.—The blooms displayed were very fresh, large and refined. M. Gale, Esq. (gardener, Mr. W. H. Cole), Twyford, was the winner in the class for eighteen blooms, in six varieties; he had Kara Dow, Mrs. Lloyd Wigg, F. S. Vallis, Queen Mary, Fred Green and Lady Talbot, the latter being selected as the premier bloom. Second honours went to Captain F. J. Dalgety, Romsey (gardener, Mr. W. Baxter). He had His Majesty (grand), Queen Mary, F. S. Vallis, Mrs. Kinsly, Mrs. Tricker and Lady Talbot. Third, Ellen Lady Swaythling, Southampton (gardener, Mr. T. Hall). The varieties Mrs. G. Drabble and Francis Jolliffe were fine indeed in this collection.

In the class for four vases of decorative Chrysanthemums, Mr. T. Hall was first with Kathleen Thompson, White Caprice du Printemps, Pink Caprice and Source d'Or. Second, Mr. W. H. Cole. Mr. Cole had the first place in the class for six vases of singles, staging Ceddie Mason, Altrincham Yellow and Miss M. Pope in fine condition.

Mr. G. Ellwood, gardener to W. H. Myers, Esq., Bishop's Waltham, was first for one vase of blooms, not disbudded, arranged with any foliage.

Mr. A. H. Hill won in the class for twelve blooms, Japanese. R. C. Pulling, His Majesty, T. Payne and Francis Jolliffe were the best blooms; a first-class certificate was awarded to the last-named variety. Second, C. W. Greenhill, Esq., Warsash (gardener, Mr. W. Hoare); third, Mr. A. H. Tofield. Mr. A. H. Hill was first in the class for twelve blooms, Japanese, not fewer than eight varieties.

Blooms on Boards.—Mr W. Baxter scored in the class for eighteen blooms, very fresh. There were two each of Mrs. Kinsly, Mrs. T. Lunt, F. S. Vallis and Master James respectively; one each of Bessie Godfrey, Lady Talbot, Queen Mary, Daily Mail, Dandy, Mrs. W. Tricker, Mrs. G. Drabble, His Majesty, Mrs. R. Luxford and Mrs. T. Stevenson. Second, Mr. W. H. Cole; the variety Marie Loomes was exceptionally fine in this stand. Third, Mr. T. Hall. Mr. A. H. Hill was first for twelve blooms, Japanese, distinct; Mr. Tofield second.

Incurved blooms are still well grown and exhibited in the Southampton district. Mr. W. Hoare scored in the class for twelve blooms, distinct; he had W. Pascoe, H. W. Thorp, Frank Trestien, Miss Thelma Hartmann, Nellie Southam, Romance, Godfrey's Eclipse, Mrs. J. P. Bryce, Mrs. Heygate, Mrs. P. N. Wiseman (grand), and Mrs. G. Denyer. Second, Mr. W. H. Cole; third, Mr. T. Hall.

The following cups, held by the winners for one year, were awarded as follows: The Victorian Memorial Cup, value £40, to M. Gale, Esq.; the Challenge Trophy for Amateurs to A. H. Hill, Esq.; the Mazawattee Challenge Cup to Mr. S. Joyner.

NON-COMPETITIVE EXHIBITS.

Gold Medals.—Messrs. W. H. Rogers and Son, Limited, for Apples and Pears; Mr. E. Wills, stove and greenhouse plants; Messrs. Toogood and Sons, vegetables.

Silver-gilt Medals.—Messrs. Jarman and Co., Chard, for Apples; Messrs. B. Ladhams, Limited, herbaceous cut flowers.

BOURNEMOUTH AUTUMN SHOW.

THIS exhibition was held recently in the spacious Winter Gardens Pavilion, which lends itself so well to such displays. The various competitive groups, tables and stands of flowers, as well as the very important non-competitive groups staged by trade growers, all combined to make a very imposing and extremely attractive show. Messrs. James Cypher and Sons, Cheltenham, and Messrs. Charlesworth, Hayward's Heath, had lovely tables of Orchids; Messrs. Stuart Low and Co., Tree Carnations; Messrs. W. Watts and Sons, Limited, Bournemouth, groups of Chrysanthemums and shrubs; Messrs. Jarman and Co., Chard, hardy fruits; and Messrs. R. Veitch and Son, Exeter, hardy fruits and Carnations.

The classes for Chrysanthemums, in vases and on boards, were well filled with blooms of great size and high quality. The eighteen blooms staged by Major Wyndham Pain, Bransgore House, Christchurch, were much the best in the show; probably their equal are not to be found in any part of the country. They easily won the silver challenge cup, finally.

COMPETITIVE EXHIBITS.

The Park Nurseries, Limited (Mr. F. W. Welch, manager), were awarded first prize in the principal class for groups of miscellaneous plants and cut flowers.

Mrs. Ormond, Astney Firs, Bournemouth (gardener, Mr. C. Pearce), won the silver challenge cup in the class; for a group of Japanese and single-flowered Chrysanthemums; second, Surgeon-General W. C. Roe (gardener, Mr. W. Messer), Bournemouth; third, Mrs. Telfer (gardener, Mr. G. Galpin), Bournemouth. These were all charming groups, well arranged.

Cut Blooms in Vases.—For nine vases, three blooms in each, Sir Randolph Baker, Bart., M.P., Rantson House, Blandford (gardener, Mr. A. E. Usher), was first; he staged Joan Stratton, Master James, Miss A. E. Roope, Mrs. Lloyd Wigg, W. Turner, Mrs. R. C. Pulling, Miss A. E. Tickle, F. S. Vallis and Mrs. J. Gibson. Second, E. G. Mocatta, Esq., Addlestone, Surrey (gardener, Mr. T. Stevenson), who staged fine blooms; third honours went to Major Chichester (gardener, Mr. W. Hall), for lovely examples.

Mr. Stevenson had the best twelve vases of singles. Mrs. Walter Hemus, Mensa, Yellow Bird, Mrs. T. Humphrey, Sandown Radiance, Jessica, Tom Wren, Molly Godfrey, Mrs. Loo Thomson, Glorious, Portia and Mrs. T. Page were the varieties shown. Mr. F. G. Bealing, Southampton, was second.

Blooms on Boards.—Mr. A. E. Usher was the winner in the class for twenty-four cut blooms, staging Mrs. J. Gibson (2), Mrs. Lloyd Wigg, Miss A. E. Roope (2), Undaunted, J. Stratton, Master James, Lady Talbot, Miss E. D. Tickle, W. Vert, Queen Mary, Mrs. R. C. Pulling, Francis Jolliffe, F. S. Vallis, Pockett's Crimson, W. Turner (2), His Majesty and W. Rigby.

Fruit and Vegetables.—These were extensively staged. Mr. W. Hall was first in the classes for two bunches of white and black Grapes, respectively, Mr. W. Webb, gardener to Dr. Ramsay, Bournemouth, being second in the black Grape class with Mrs. Pince. Mr. Hall's Muscat of Alexandria were very fine. Mr. Webb scored in another class for two bunches of black Grapes, Mr. G. Garner second.

NON-COMPETITIVE EXHIBITS.

Gold Medals.—Messrs. Toogood and Sons, Southampton, for vegetables; Messrs. J. Cypher and Sons for Orchids; Messrs. Stuart Low and Co. for Carnations; Messrs. G. Watts and Sons, Limited, for stove and greenhouse plants; Messrs. R. Veitch and Son, Exeter, for hardy fruits; Messrs. Charlesworth and Co. for Orchids.

Silver Medals.—Mr. F. B. Summerbee for floral designs; Messrs. Jarman and Co. for Apples; and Messrs. John Waterer and Sons for shrubs.

THE GARDEN.

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NOVEMBER 27, 1915.

NOTES OF THE WEEK.

The National Chrysanthemum Society.—

The executive committee of the National Chrysanthemum Society have decided to hold a show at the Royal Horticultural Hall, Vincent Square, Westminster, S.W., on November 9 and 10, 1916, and the necessary arrangements with regard to same have now been made.

Professor Lefroy's New Appointment.—

Professor Lefroy, who has served during the past year as entomologist to the Royal Horticultural Society, has accepted an urgent invitation from the Secretary of State for India to proceed to the East in order to carry out investigations of great economic importance.

Erigeron Quakeress.—

At the November meeting of the East Anglian Horticultural Club, one of the members, Mr. T. Notley, brought with him a fine bunch of the lavender blue flowers of *Erigeron Quakeress*, which he now has blooming profusely for the second time. This is unquestionably one of the very best of the newer varieties, of compact habit, requiring little staking. It is splendid both as a border plant and for cutting, and should not be forgotten at the present planting season.

Protecting Early Flowering Chrysanthemums.—

Now that these valuable plants are over, a few plants of each variety should be lifted and placed in a frame, covering the roots with leaves. They need very little attention. Plants treated in this way will give plenty of cuttings later; or they may be taken out and divided as soon as the new growths are far enough advanced.

A Beautiful Berried Tree.—

There is no hardier tree or shrub for thriving in town gardens than *Cotoneaster frigida*; it is certainly the most striking of all the *Cotoneasters*. Its clusters of bright red berries wreathing the branches form quite a picture during the autumn and early winter, sometimes remaining on the trees until February. The tree should be kept to one stem, removing the lower branches when young. It will then make a pretty, round-headed tree 20 feet high, with a well-shaped trunk.

The Golden-Fruited Yew.—

In the extensive collection of Yews at Kew, several trees or large bushes of *Taxus baccata fructu luteo* are conspicuous at the present time. They form a pleasing divergence to the red-fruited varieties, while the rich golden yellow colour is even more attractive.

This variety is said to have originated in Ireland about a hundred years ago. There may be many trees of it in cultivation, but as male and female flowers are borne on different plants, the fruits are not formed unless specimens of the two are in proximity.

Seedling Trees.—Mr. J. Fraser, at a recent meeting of the scientific committee of the Royal Horticultural Society, stated that he had recently found seedlings of a variety of trees on the Leatherhead Downs, twenty-seven in all, and that in one

6 inches long, with numerous spiny teeth round the margins. The flowers are a dull yellow, followed by purple black fruits in autumn. At this season some of the older leaves turn a rich golden yellow, flushed with red.

Bulbs for Convalescent Camps.—

The President of the Royal Horticultural Society recently appealed to home growers of bulbs for consignments of their surplus stock for standing and convalescent camps in France, to interest in gardening those men who are able to do a little work. We are

glad to hear that there has been a good response, bulbs to the weight of over one ton having been received and despatched for distribution through the medium of the Red Cross Society. The contributors are as follow: The Edinburgh Botanic Gardens, the Rev. J. Jacob, Messrs. Walter T. Ware, Dickson and Robinson, A. M. Wilson, Sutton and Sons, Carter Page and Co., Dickson, Brown and Tait, Robert Veitch, T. G. Brown, J. R. Pearson, W. H. Divers, W. Poupart, and Barr and Sons.

A Plant for Mossy Walls.—

A pretty little plant for wet, mossy walls near fountains, &c., is *Laurentia tenella* from Cyprus and other parts of the Southern Mediterranean. Its small leaflets form pretty, bright green tufts among the moss. The flowers are small and pale mauve, but appear in great abundance for a long succession from spring and extending through the summer. They are exactly like minute *Lobelia* flowers in shape, to which genus *Laurentia* is closely related. The plant will soon establish itself when rightly placed, and needs no care whatever.—A. E. B.

Collecting Horse Chestnuts.—

Children living in country districts can assist in increasing the home production of food in many ways. At present, if their parents keep pigs or other live-stock, they can help to reduce the cost of feeding by collecting Acorns and Horse Chestnuts, rough grass, &c., for use as fodder. They can also help to economise the use of straw for litter by collecting dried Bracken, grass, leaves and reeds. Suggestions for the use of these materials are given in leaflets issued by the Board of Agriculture and Fisheries, and while we give these suggestions our whole-hearted support, we are interested in the use for Horse Chestnuts, which are left untouched by most animals, except herds of deer, even in very hard winters.



ERIGERON QUAKERESS, A BEAUTIFUL BORDER PLANT THAT CONTINUES TO FLOWER UNTIL NOVEMBER.

gravel-pit he had found three species of *Lemna* (*L. polyrrhiza*, *L. minor* and *L. trisulca*), and the rare *Wolffia arrhiza*, the smallest of flowering plants.

A New Evergreen Barberry.—Among the numerous species of *Berberis* introduced from China by Mr. E. H. Wilson, *B. acuminata* is one of the most distinct. Specimens were collected in 1882 by the French missionary Abbé. Delavay, but it was not until 1900 that seeds were sent home by Mr. Wilson. It promises to form a fairly large bush, and has dark green leaves nearly

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Chrysanthemum arcticum.—I was glad to see the capital illustration and note on *Chrysanthemum arcticum* in *THE GARDEN* of November 6. I obtained this plant many years ago from the late Mr. Bruce Findlay, when paying a visit to the Manchester Botanic Gardens, then under his charge. I have had it ever since. With me it is not pure white, but faintly tinged with rose. Its two faults are the form of the blooms and its tendency to creep at the roots. This is an advantage when propagation is desired, but is sometimes a drawback to other plants in its vicinity.

—S. ARNOTT.

Sea Pinks as Edging to Rose Beds.

As edgings to narrow paved paths, Thrift is delightful. The two in combination give to a garden that old-fashioned touch which so many amateurs now desire. The round evergreen cushions prevent the soil from encroaching on to the paved walks, and keep the edging neat and prim without being exactly formal. The form illustrated is the ordinary deep rose variety. It is the most economical of plants, and yet one of the most floriferous. When the Roses first bloomed, every flower was cut from the Sea Pinks, as the colour was fading. We estimated that we cut 15,000 flowers from the plants—an average of fifty to the plant, and yet a few weeks later they were again as seen in the photograph. The Roses have gone, but the Sea Pinks are still in bloom, and look as if they might continue so until spring comes round again.—A. L. D., *Marple*.

Lapagerias Flowering Outside on North Walls.—You ask for information from your readers as to the outdoor cultivation of *Lapagerias*. I have several plants, some of them 10 feet high, growing well on north walls. They have been in flower already for several weeks, and will continue so until after Christmas. The white variety is included as well as the red, but seems less vigorous. In planting, a little peat was mixed with the natural soil (which is green-sand). I find that they do not do well on a south exposure, and they seem to require the shade of a north wall. Most of them have been out in their present position for six or seven years.—L. H., *Nuneham Park, Oxford*.

Passiflora edulis.—The edible Passion fruit, *Passiflora edulis*, which you illustrated and commended in your issue for November 13, page 551, is, I think, too little appreciated. It is a most pleasant fruit. I am not aware of any difficulty in the cultivation of it, and I know that the genus generally well repays attention under glass. I have endeavoured to obtain plants from firms of repute, but to my surprise there appears to be no demand for them, therefore I am obtaining seeds from Sydney, New South Wales, where the plant grows to perfection and is largely grown owing to public demand. In a part of the State I have seen

bird sown plants growing luxuriantly on moist river banks; but the moisture of a well manured and drained loam is sufficient, and when grown in such a medium fruit is certain; that is, in a climate where most of our cold and temperate house subjects grow outdoors. Given a warm wall in a greenhouse it ought to thrive. The fruit is not very ornamental, for when ripe it is only dull purple to dark brown, but the foliage when growing strongly is ornamental.—PRIVATE GARDENER.

Remedy for Club Root in Cabbage.—I recall some five years ago making an addition to the garden of a very rough piece of ground which I knew had never been broken up before. Now,



SEA PINKS BORDERING A NARROW PATHWAY.

this piece was bastard-trenched and laid rough till February, when I planted some six score of Cabbage Winningstadt of my own sowing. To my intense surprise the crop turned out a very poor one, and on examination I found club root to be the cause. The year after the ground was again dug over, and no manure added. I then made a mixture of water and clay to the consistency of cream—four gallons of water and twenty to thirty pounds of yellow clay, with half a pound of flowers of sulphur. I again planted the same variety of my own sowing. Each plant I dipped up to the leaves in this mixture and planted at once, taking care the mixture did not drop off. I awaited the result, and out of six score plants only three were bad. This is a remedy which answered successfully with me, but I cannot

say that it will suit all soils. I might also say that at the Chapel-en-le-Frith Horticultural Show that autumn I took the first prize from this plot in a strong class (open) for a pair of white Cabbages to be shown with roots.—PRIVATE H. W. BENNETT, 2369, A Company, 6th Sherwood Foresters, British Expeditionary Force, France.

Late-Flowering Climbers.—Is it not rather wonderful at this time of year to have a Passion Flower in full bloom? I have one now on the east side of this house, which gets very little sun owing to a projecting wing, on which I counted to-day (November 16) twenty-eight fully expanded blossoms, besides hundreds of others half open and in bud. Two nights ago we had over 20° of frost, while this morning the ground was white with snow—and mid-Oxfordshire can hardly boast a warm climate. I may mention besides that on the west side, facing the Passion Flower, I have a white *Solanum*, planted only a year and a half ago, which is 30 feet or more high, far beyond the gutter and straggling over the roof, also still smothered in bloom, in spite of the frost above mentioned. The courtyard both are growing in is paved; hence I believe their growth and hardiness.—A. LA T., *The Old Hall, Oxon*. [Although the specific names of the climbers are not given, there is little doubt that *Passiflora carulea* and *Solanum jasminoides* are intended, both of which we have recently seen flowering on sheltered walls and archways in Surrey. The fact that these plants are natives of Southern Brazil makes it all the more remarkable that they should continue to flower after the hard frosts we have lately experienced.—Ed.]

Plum Coe's Golden Drop and Pear

Pitmaston Duchess.—There is no questioning the fact that the Squire of Braziers is a thorough and capable judge of anything that is good in the fruit or floral line, but I think future pages of *THE GARDEN* will show that his condemnation of Plum Coe's Golden Drop on page 552, issue November 13, is a little severe and quite unmerited. It is not at all a bad plan for growers of this Plum to "forget" that it is included in their collection, and "quite accidentally" come across it late in October or the early days of November. Then I have heard the fruits likened to "bags of nectar." What if the skins are slightly tough? It is the "nectar" we are after and not the

"bags"; and are the latter any more difficult to dispose of than the skins of Grapes? I am fully in agreement that Pitmaston Duchess is not a first-rate Pear, and the faults mentioned by your esteemed correspondent are only too apparent; nevertheless, so long as Pear Pitmaston Duchess proves itself the reliable cropper it undoubtedly is, so long will it be grown. Size is no recommendation to the epicure; yet, let anyone pit a dish of that gem among Pears, Thompson's, against a dish of Pitmaston Duchess at a fruit exhibition, and you will find the latter the choice of the judges. Pear Doyenné du Comice can frequently give points to Pitmaston Duchess in size; but never yet have I heard an adverse criticism on this account.—HEATHER JOCK, *Hants*.

Black Spot on Roses.—In reply to "T. A. W." and others, there is no cure for black spot. Preventive remedies will, however, keep it in check, and these are: Pick off and gather all fallen leaves until a hard frost has made the plants dormant, then spray the plants and the ground with freshly made Bordeaux mixture. As soon as all the leaves are off the plants, gather them up and spray again, and spray twice a month until February, then use the soda form of Bordeaux with treacle, as the writer suggested in the Rose Annual for 1915, and soap sprays during the summer. The plants must be kept clean and free from all insect pests during the next summer. I do not think that "T. A. W.'s" Roses have black spot, but, instead, scale. All the Pernetiana Roses are very susceptible to scale; they catch it from the Briars and have a bad attack of it. The honey-dew from aphides and excretions from other pests will behave in much the same way. The treatment will be the same as above. If not a member of the National Rose Society, see some friend who is, and borrow the Annuals for 1913, 1914 and 1915 and carefully read them; but if you would have Roses you must clean up and keep clean at all times. All dead leaves and prunings must be promptly gathered up and burnt at once.—T. N. C.

A Simple Mouse-Trap for Use in the Garden.—I see in recent issues of THE GARDEN complaints of the damage done by mice. I was much bothered by these some time ago. I tried poison, but fresh mice came continually, so I found a trap the best remedy. I used old tins half filled with water, and a tin tilt with grease put in the middle. No. 1 shows the tin buried in the soil. No. 2, the water in the tin. No. 3.—At the point shown by the arrow a hole is made in the side of the tin to prevent the latter becoming full of water. Nos. 4, 4 depict a lump of grease fastened to the tilt on the cross wire. No. 5, the cross wire. No. 6, the tilt fastened to the latter, with small wire on the top of the tin. I have these traps round my kitchen garden, and the mice are taken out when dead. A hole must be punched in the tin, or it will become too full of water.—A. W. A., Smallfield Place, Horley, Surrey. [This kind of

Magenta Flowers.—I wonder whether any readers of THE GARDEN can supply me with names of good perennials of a real magenta colour. By "real magenta" I mean, not the ugly washy colours, but the deep rich colour found in dark Petunias and Geranium sanguineum. I am rearranging a hitherto unsatisfactory portion of a long herbaceous border, and hope to find that a mixture of red-purples and Petunia will give the depth and warmth of colour desired in that particular spot. I know many people are like Mr. Bowles and feel ill at the sight of the colour. I have always found it much admired when properly placed, but a certain amount depends upon the texture of the flowers. My present stock in trade consists of the Geranium, a few Petunia cuttings and some Dahlias, and as my border is very wide, I shall be grateful to anyone who can supply me with advice and names. I find I cannot

CÆSALPINIA JAPONICA & C. PULCHERRIMA.

By Miss Ellen Willmott, V.M.H.

FROM some notes upon Cæsalpinias in THE GARDEN, issue November 6, page 546, your readers might gather that Cæsalpinia japonica would only grow in favoured localities. I believe it is much hardier than it is usually given credit for. I have two plants in my garden which have stood the past twenty winters absolutely unscathed without any sort of protection. Originally planted against north and south walls respectively, they have long since grown into small trees and have made heads above the walls, and flower and fruit freely.



THE BARBADOS PRIDE (CÆSALPINIA PULCHERRIMA), WITH ACACIA-LIKE FOLIAGE.

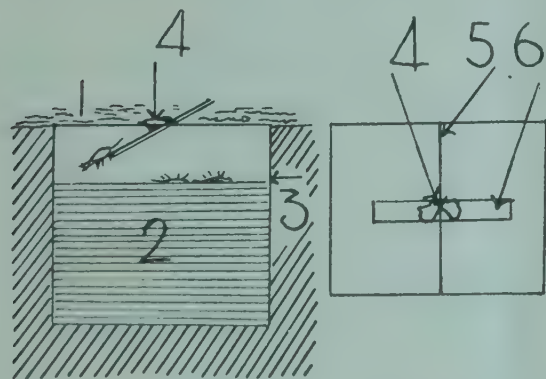
obtain some of my old friends, such as English Iris Pharon and Lupine Ruby. The railway company took a fancy to my plants when I moved here.—MAGENTA.

Nerines.—The question whether Nerines are coming into favour, which is asked in THE GARDEN, must in my opinion be answered in the affirmative. The last twenty years have seen a vast improvement in the varieties brought forward, though some of the older kinds still hold their own. Complaints are by no means infrequent that Nerines cannot be depended upon to flower well. This is often the fault of the cultivator, who is far too tender-hearted to give them that thorough roasting after the leaves die off which is so necessary for the production of flowers. I have heard complaints that some varieties are not to be obtained from the ordinary trade sources. This need not occasion any surprise, as when Nerines are raised from seeds a good deal of variation will be found, even in the occupants of the same pod.—H. P.

If the Cæsalpinia can thus accommodate itself to my bleak, wind-swept garden at Warley, it could be grown with success almost anywhere, and it certainly merits a place in every garden. Its Fern-like foliage and distinct growth, together with its beautiful racemes of pale clear lemon-coloured blossoms with long red stamens, form a striking contrast to most of the shrubs and small trees usually seen in English gardens.

I have a tree of C. japonica some 25 feet high in my garden at Tresserve in Savoy, where the frost is of much longer duration and the winters far more rigorous than in England; but the Continental sun affords the wood better opportunities of ripening, and other conditions also differ.

Like so many of the Chinese and Japanese trees and shrubs, the habit of growth is picturesque and distinctive, and if pruned or lopped, much of its character is lost. Therefore, in planting, care should be taken to keep it well away from any pathway, so that ample space may be allowed



trap is also useful for catching moles in their runs, by sinking the trap below the run and not baiting it.—ED.]

for future development, as the stout, hooked thorns which arm its stems and leaves need to be given a wide berth.

This genus was named in honour of Andræus Cæsalpinus, an Italian botanist, and physician to Pope Clement VIII. It comprises some fifty species, mostly tropical or semi-tropical trees or shrubs. *C. pulcherrima*, the Barbados Pride, is the brightest and gayest of the genus. It succeeds well in a cool greenhouse with me, and if planted out in a sunny position, its beautiful red and yellow flowers will make a strikingly attractive feature in the border during the summer.

APPLE GASCOYNE'S SCARLET.

The accompanying illustration depicts this Apple growing as a bush in the garden at Aldenham House, and shows what, under good culture, a

WORK AMONG THE CHRYSANTHEMUMS.

THE harvest of blossom, after nearly a full year's labour, is now being reaped. Many thousands of blooms are being sent to the hospitals, where they will be much appreciated by our brave defenders. Not a single flower should be wasted; take the greatest care of all, for whatever special purpose they may be grown.

Excessive Damp.—This is one of the worst enemies of the flowers, and the larger the blooms and the more substantial the petals, the more likely they are to become victims to excessive damp. There is one specially good point the Chrysanthemum possesses, namely, its good flowering qualities and the freshness of the flowers over a long period without being aided by fire-heat, and as

rays will not readily reach them, the whites and yellows being arranged in the sunniest positions.

Immediately above very choice blooms that are approaching full development fasten sheets of white blotting paper; the paper will arrest and absorb the moisture as it falls and condenses during the night, and thus prevents it affecting the petals to a serious extent.

Feeding.—The excessive feeding of the plants at this stage is responsible for much damping of flowers. Rely chiefly now on clear water, and apply it early in the day. Where possible, place the plants well apart so that air can freely pass between them.

AVON.

NEW CHRYSANTHEMUM APHRODITE.

It is such an unusual occurrence for an Anemone-flowered Chrysanthemum to receive a special award that the card of commendation recently granted by the National Chrysanthemum Society to the variety Aphrodite is an incident worthy of more than a passing reference. The Anemone-flowered Chrysanthemum is an old type of flower that has, unlike the Japanese Chrysanthemum, been almost overlooked. The Anemone or Quilled Aster flowered Chrysanthemum as it used to be called has an outer symmetrical ring or rings of strap-like ray florets, and tubular disc florets densely arranged in a cushion-like boss in the centre of the flower. The blooms at first sight resemble Scabious or Pincushion Flowers. The variety Aphrodite has self mauve pink flowers. In addition to the honour already mentioned, the exhibitors, Messrs. Cragg, Harrison and Cragg of Heston, Hounslow, Middlesex, also secured with this variety the premier award for six vases of Anemone-flowered blooms.

HARDY CLERODENDRONS

CLERODENDRON FARGESII is one of the small trees or large shrubs introduced from Western China some nine or ten years ago, and is a decided acquisition to our gardens. If allowed to develop

naturally it forms a large bush some 10 feet or more in height and about the same in diameter, covered in late August and throughout September with clusters of white, star-like flowers. The latter are produced terminally, and are individually a little over an inch across, five-petalled, and have a scent strongly reminiscent of Paper-white Narcissus. The calyces are deep pink and the flowers are followed by china blue berries about the size of small Peas, and are very attractive, hanging on the plant until December.

The older and better known *C. trichotomum* is also in bloom at the same time, but *C. Fargesii* is the better species of the two for garden purposes. The latter is, on the whole, hardier, also more floriferous. Both are easily raised from seed, which is freely produced, and cuttings of half-ripened wood will also strike, though not very readily.

J. C.



APPLE GASCOYNE'S SCARLET, CARRYING A HEAVY CROP IN ALDENHAM HOUSE GARDENS, HERTS.

grand Apple it is, even for those with limited space. Considering the huge crop this tree bore, the fruit was of full size and the colour magnificent—a rich crimson, suffused with that soft plum-like bloom this Apple is noted for. I find in its earlier stages of growth some attention is needed at the roots to induce fruitfulness, the growth being vigorous. When well established the trees crop annually, as a rule. Grown as an espalier it succeeds admirably, or as a cordon in the open. Its season is really November and December for cooking. For dessert, too, there are many worse Apples, while it is held in great repute as a market variety and at the present time is sold in large quantities in Covent Garden. The variety was raised by Mr. Gascoyne of Bapchild, Sittingbourne, and was introduced by Messrs. G. Bunyard and Son in 1871.

E. M. S.

economy in fuel is a consideration, close attention must be paid to ventilation.

Take advantage of every hour of bright sunshine to admit air, especially while the atmosphere outside is dry. Reduce the ventilation in the afternoon to exclude damp, and almost close the front ventilators at night. Open the top ventilators early in the morning to get the petals dry before the sun shines on them. The sun shining on the blooms while there is condensed moisture on them soon causes burning and decay.

Bronze, chestnut, crimson and reddish crimson colours suffer most from scalding, the reddish crimson most of all. Lilac, mauve and pink colours suffer next; white, cream and yellow colours suffer least. Blooms which burn and scald soonest should be shaded more than the others. Plants bearing flowers of these colours, and also purples, should be placed where the sun's

BORDER CARNATIONS.

By J. L. GIBSON.

I WOULD like to discuss in this article the formation of a small collection of border Carnations for amateurs. One gleans from many sources ideas and suggestions meant to guide the uninitiated; books on the subject; articles in the gardening Press; answers to correspondents; hints from growers; they all give lists of desirable varieties, and doubtless many beginners have been wisely guided by these helps. But I have seen so many obviously indefensible lists submitted for this purpose that I propose to make a bold bid for criticism by declaring the following selection as a trustworthy guide to those who, desirous of starting a small but good collection of Carnations, have not the experience to profit themselves to the best advantage by wading through the catalogues of trade growers.

There are, however, two points to be borne in mind when this selection is criticised by keen-eyed readers who may like to differ. In the first place, many amateurs who regularly grow Carnations in the open borders only know the flower as there produced, fashioned and

shaped to a great extent by the whimsical and capricious changes of the British climate. Some at least of these amateurs possess glass-houses, and I want to induce all who can to cultivate a few plants inside, and the varieties below which are marked with an asterisk will do better there than they do in the border. Secondly, though economy must be a prime consideration in these war-fraught days, I hold that cheapness and economy are by no means synonymous terms; so, while omitting the very newest varieties as being both expensive and only partially tested, I have selected two dozen sorts irrespective of price, because, I take it, most



THE NEW CARNATION DAISY WALKER.



ANEMONE-FLOWERED CHRYSANTHEMUM APHRODITE.

of us would feel it unworthy if we saved sixpence on a plant and secured the second best instead of the best.

I can at least guarantee that the following will give abundant satisfaction to all who know how to grow the Carnation: Beau Nash, Bookham Clove, Bookham White, Border Yellow, *Daffodil, Daisy Walker, Edenside, Elizabeth Shifner, *Ellen Douglas, Gordon Douglas, Ibis, Innocence, *Lieutenant Shackleton, Miss Rose Josephs, *Miss Willmott, Mrs. Andrew Brotherston, Mrs. George Marshall, Mrs. Griffith Jones, *Pasquin, Rosy Morn, *Solfaterra, The King, Zulu and Ziska.

The illustration depicts the fine new white-ground fancy Daisy Walker, and admirably shows the perfect shape of the flower and delicate pencilling of rosy scarlet on the pure white ground.

There are many other named Carnations, of course, that larger growers would not think of doing without, but I am prepared for anyone who cares to cross swords with me in a friendly bout of argument as to the foregoing. If a wider range can be indulged in, there are Amazon, a beautifully formed flower of true Venetian red colour—quite unique; Annie Laurie, flesh coloured, very fine; Brilliant, a dazzling scarlet and a good doer; Caprice, pink with rose spots, perfect shape, a great favourite of mine; Dora Blick, a most beautiful flower, not too strong in the stem; Forester, a fine, rich-coloured fancy; Fujiyama, one of the best dark reds; Greyhound, silvery lavender; Helen Countess of Radnor, deep crimson, very good in the open; Linkman, Lord Steyne and Mandarin, good fancies; Montrose, white-ground fancy, excellent grower; Mrs. H. L. Hunt, a very delicate, sweet-looking flower, but its constitution might be stronger; Mrs. Robert Morton, an apricot self that does well anywhere; Sweetheart and Virginia, both beautiful fancies.

Having selected one's stock, a most important item is to get the plants from a good source. Cheap

offers should be shunned, as many traps lie open to the unwary buyer. Weak plants, disease-infected stock and other troubles surely await the innocent who so knowingly saves a few shillings on his order.

ROSES FOR PILLARS.

SINCE the introduction of Crimson Rambler nearly twenty years ago, the cultivation of Roses has undergone a great change, a change that has

flowers on wichuraiana or multiflora hybrids are by no means beyond the bounds of possibility.

The greatest change that these rambling Roses have brought about in our gardens during recent years is their cultivation as pillar plants. During July I was greatly interested in many beautiful examples in the counties of Essex and Suffolk, plants tied loosely to posts some 8 feet or even more in height, and each bedecked with its glorious and fragrant blooms from base to summit. The effect of such plants in a Rose garden is most beautiful and pleasing, and no great amount of skill is required to bring into

being Rose pillars of this description. The best posts that I have seen used for the purpose were some young Scotch Pines, about 6 inches in diameter at the base. When these were felled the branches were left about a foot long right up the trunk, so that the wands of the Roses could be tied to them, each pillar thus being about 2 feet in diameter before the leaves of the Roses were developed. When in full growth and flower the effect was most beautiful, the diameter of some strong-growing varieties, such as Mme. d'Arblay, being nearly 4 feet. Apart from the unique effect, the side branches of the posts prevented the growths of the Roses swaying about in the wind, as they are apt to do when a smooth, round post only is used.

In some gardens there are old fruit or other trees that are of no value, and which, if left alone, are little more than blots on the landscape. Yet the owner, for some reason or other, may not wish to have them removed, and it is here that our pillar Roses may be utilised. Indeed, the effect of such trees when clothed with Roses is better even than on the dead posts already mentioned. To clothe such trees with Roses is not

difficult, providing we select free-growing varieties and remember to plant them some distance from the trunks of the trees. It is also necessary to well prepare the soil, entirely removing some of the old and replacing it with good stiff loam. The accompanying illustration of Blush Rambler serves to indicate what a very beautiful effect may be obtained without much expense. The trees, too, have the advantage over dead posts, inasmuch as they last for a very long time and do not collapse just when the Roses have become well established.

Another secret of success in growing these pillar Roses is undoubtedly, with the majority of

varieties, light pruning. By this I do not mean that this important operation should be entirely neglected, but instead of cutting the shoots hard back, as is usually done, a thinning out of old wood would be far more beneficial. This, too, should, in most cases, be done as soon after the plants have flowered as possible.

Pruning Pillar Roses.—With Crimson Rambler it is best to cut the old wood right down to the ground, and rely each year upon the new, wand-like growths that are pushed up from the base. With the wichuraiana section, however, this plan would not always answer, because it frequently happens that the strongest new shoots are produced from the old wood some distance from the soil. But we cannot do wrong with any rambling Rose if we sacrifice old wood to make room for vigorous young shoots, no matter what part of the plant these spring from. If the old wood is cut out as early as possible after the flowers have faded, the young growths have a good opportunity of becoming well ripened before the winter, and are thereby better enabled to withstand frost.

Climbing Roses with large Blooms.—Although the rambling Roses of the multiflora and wichuraiana sections are very beautiful and pleasing to most lovers of Roses, they do not find favour with all, on account of their small blooms; hence recourse must be had to varieties with large flowers. Happily, there are a number of these available, one of the best being Ards Rover, with its beautiful crimson and fragrant blooms. Another old variety that I have noticed doing well in pillar form is Mme. Isaac Pereire. This is a Boursault Rose, with very large and full blooms of rose carmine colour, and one that I have a great liking for. In common with most of its section, it is deliciously fragrant, and for this feature alone is well worth a place in the garden. Tea Rambler, a beautiful climbing Tea Rose, is also excellent in pillar form. Its flowers, though not so large as those of the foregoing, are of good size and quite suitable for cutting, while the charming coppery pink colour always meets with a good reception. Billiard et Barré (a climbing Tea with golden yellow flowers), Climbing Mrs. W. J. Grant, Climbing Snow Queen Climbing Captain Christy, Climbing La France, Grüss an Teplitz (with crimson and fragrant flowers), Gustave Regis (pale yellow), Lady Waterlow (pale salmon pink), and the Thornless Rose, Zephyrine Drouhin, are others with large flowers that we may utilise for our pillars.

Other Roses for Pillars are Blush Rambler, Crimson Rambler, Carmine Pillar, Dorothy Perkins and Hiawatha, all of them too well known to need more than passing mention. A variety that pleased the writer very much last season was Tausendschön. This has bunches of glorious frilled flowers of the most pleasing shade of shell pink. Goldfinch is a very fragrant Rose with semi-double blooms. The buds are golden yellow in character, but the open blooms fade to deep cream. It is a splendid pillar Rose. Rubin is another good pillar Rose that is not much known. Its colour is described as deep crimson, but it is of quite a different shade to Crimson Rambler. It flowers very freely, but, owing to its peculiar colour, ought not to be planted near other crimson or scarlet varieties. Edmond Proust (flesh pink with carmine centre), Elise Robichon (pale rosy yellow), Mrs. F. W. Flight (bright pink) and Paul Transon (salmon pink) are all good pillar Roses that are not cultivated so extensively as their merits demand.

H.



BLUSH RAMBLER AND LAVENDER AT WARLEY PLACE, ESSEX.

added charm and beauty to gardens of all kinds; and although we may lament the passing from cottage gardens of the Old Damask and Monthly Roses, we cannot but admit that their places have been filled by others which are even more beautiful and pleasing. Hybridists have been so busy with the Japanese or wichuraiana Rose that we now have a wonderful host to select from, a host that is almost as varied in form and colour as the older and perhaps better known bush Roses. It is true that they do not yet possess the large, full blooms of such varieties as Ards Rover or Climbing Caroline Testout; but when we remember what has been done during the last decade, such

THE HEATH GARDEN IN AUTUMN.

THE Cornish Heath, with its thick carpet of purplish rose flowers, is one of the glories of an autumn garden. It is appropriately named. *Erica vagans*, meaning the Wandering Heath, for it is seen in its happiest mood when encroaching over a garden pathway or spreading among Pines, Arbutuses, Tree Heaths, and other tall-growing trees and shrubs. In a like manner

Heaths are backed by Rhododendrons, and overshadowed by Oaks and coniferous trees. In these congenial surroundings the Heaths never fail to give satisfaction. True, the soil is naturally suited to them, for Pine woods and Heather form the leading vegetation of the surrounding country, and it needs but a glance at the bright patches of Ling or Heather of this Surrey moorland to convince one that this is an ideal site for a Heath garden. To return to the Cornish Heath, there are many varieties, but *E. vagans grandiflora* is certainly the best of them. Its rosy pink flowers are thickly set and the racemes are borne

tomentosa and *tomentosa alba*, with spiky inflorescences rising about 18 inches from the ground, with rose and white flowers respectively, are among the very latest of the Heaths to flower. The garden varieties *Hammondii*, *Searlei* and *Alportii* are three of the best in cultivation, and although now past their best, are still flowering fairly well. But the glory of the Heath garden does not depend entirely on the Heather bloom, although flowers are there in every month of the year. *E. lusitanica*, with its tall plumes of dense green foliage, is very beautiful; while the low-growing *E. mediterranea hybrida* and *E. carnea* are both



THE CORNISH HEATH ON THE MARGIN OF THE WOODLAND AT KEW.

it spreads on the moorlands of Cornwall, Ireland and in the South of France. In Cornwall, however, it is abundant, and the white form, *alba*, also occurs there. It is a splendid subject for growing in large, informal masses around the edges of the woodland, and here let it be said that Heaths should always be grown in natural groups and, for preference, in close proximity to trees. Heaths grown in beds of formal design—and, sad to relate, they are still grown that way in many gardens of repute—are shorn of all their natural beauty. The Heath garden at Wisley is a good example of what a Heath garden should be. At all times of the year it is interesting and beautiful. The

freely. The flowers of *St. Dabeoc's* Heath are now passing over, but the late and gracefully drooping blooms in many colours, crimson, purple and white, are especially welcome when in season.

Erica ciliaris maweana, a deep claret red variety of the Dorset Heath, is one of the gems among October-flowering Heathers. It makes low-spreading tufts and is perfectly hardy. It is a native of Portugal. The type, *E. ciliaris*, occurs wild in Dorset and Cornwall, and it is one of the most delightful of dwarf Heaths in late summer and early autumn.

The common Heather of our moors, *Calluna vulgaris*, or common Ling, and its varieties

full of bud, and give a wonderful promise of bloom from January onwards.

Then there are a few peat-loving plants suitable for growing among the Heaths, such as *Kalmia angustifolia* and *Cyrilla racemiflora*, that flower in autumn. The former has heads of deep rosy flowers; the latter shrub grows to a height of 6 feet and bears in whorls dainty racemes of creamy white flowers. *Enkianthus campanulatus*, with its crimson and bronze foliage and its orange-tinted fruits, curiously twisted upside down, might also be included. Leaves may fall and flowers fade, but the Heath garden is the embodiment of brightness at all times of the year.

C. Q.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Propagating Young Vines.—These are readily propagated by cuttings or "eyes" planted early in the New Year. Now is the time to select suitable shoots for this purpose. Shoots of moderate strength and thoroughly matured must be retained when pruning the old Vines. Tie them in bundles, carefully label them, and heel them in at the foot of a north wall.

Pot Fruit Trees.—Where a number of fruit trees are grown in pots or tubs, it is wise to pot up a few "maidens" every year to replace or supplement older trees. Lose no time in potting them up when they arrive from the nursery. Pots 8 inches or 9 inches in diameter are ample for the first year or two. Cut well back the strong roots to encourage fibre. See that the pots are well drained, or the soil will become water-logged and sour before the roots have taken a firm hold. Plunge them in ashes or Bracken in a position which is somewhat sheltered from heavy rains. Pruning must not be done till the spring. They may then be cut back to four or five buds.

Plants Under Glass.

Bulbs.—It will be necessary to examine bulbs which are plunged in ashes, and if growth is active they must be taken from the ashes and placed in a cold frame. A few pots of early Tulips, such as *Proserpine*, and some of the early *Narcissi* may now be placed in the forcing-house if they are well rooted. *Narcissi* must not be forced too hard till the flower-buds are showing. Bulbs in frames must be protected from rats and mice, which are very destructive.

Poinsettias.—Keep the atmosphere dry, but afford water to the roots as often as they require it. When the bracts are fully developed, feeding must be discontinued. At this stage a temperature of 50° or 55° will be ample. A little air should be admitted through the top ventilators whenever the weather will allow.

Palms.—To keep Palms in a healthy condition, it is necessary to give them a thorough cleaning annually. In bad weather, labour can sometimes be spared from outside for this work. Scale is one of the worst enemies of the Palm, and if not removed the leaves soon develop a sickly appearance. This work must be done carefully, for the fronds are easily damaged. Strong soft soapy water and a sponge will readily remove this pest. When all the plants have been thoroughly cleaned, cleanse the house before rearranging the plants.

The Flower Garden.

Shrubberies.—The planting of deciduous shrubs should be finished as soon as possible. When this work is completed, the shrubberies should be cleared of fallen leaves and rubbish, and the ground dug. Leaves may with advantage be dug into the ground. Many surplus herbaceous plants may be made use of in front of the shrubbery.

Salvia Pitcheri.—This beautiful *Salvia* deserves to be more generally grown outdoors. It is, however, necessary to give it a sheltered position, such as at the foot of a wall facing south. Here we have it interspersed with outdoor *Chrysanthemums*, with admirable effect. In a sheltered situation this plant will winter safely outdoors. It is easily propagated by cuttings inserted in the spring, or by division of the roots.

Tropæolum speciosum.—If it is desired to propagate this beautiful *Tropæolum*, the tubers should be dug up, divided, and set in boxes or pans and placed in a cold frame. They must not be replanted till late in the spring when the young growths are on the move. In the meantime the ground where they are to be planted must be well prepared by deep cultivation and manuring. Only for the purpose of increasing the stock should established plants be disturbed, as the roots are impatient of removal.

The Hardy Fruit Garden.

Pears.—Proceed with the work of pruning these when the weather is favourable. In dealing with wall trees the object must always be to have the fruit-buds as near to the wall as possible for protection. Therefore, when pruning old trees,

spurs which have been allowed to grow too far from the wall may be cut well back. The heads of bush trees must be kept sufficiently thin to allow plenty of light to reach all parts of the trees. Spurs also must be thinned if they are too numerous; it is only by this means that strong, healthy fruit-buds are formed.

Cordon Pears.—To keep these in a healthy, fruit-bearing condition, they should be lifted and root pruned every two or three years. It is only by this means that root fibres are formed in quantity, and if the trees are dealt with at regular intervals, the lifting may be done without prejudicing the following season's crop. A little chopped loam, mixed with old lime rubble and wood ashes, should be placed round the roots when replanting the trees.

The Kitchen Garden.

Turnips.—The latest-sown roots should now be lifted and placed in the store. For immediate use a quantity may be placed in a dry shed and covered with sand. The rest will keep quite well if placed in heaps and covered with ashes, but the heaps must not be made too large, or there will be danger of "heating."

Parsnips.—The bulk of this crop will keep best if left in the ground; but in case of a prolonged spell of frost, it is advisable to lift and store a quantity for immediate use.

Digging and Trenching.—This work must be persevered with whenever conditions are favourable. It is quite probable that in most gardens trenching or double digging will have to be neglected this season through lack of labour. It may also be necessary in some parts of the garden to use the plough, which would be a great saving of labour; indeed, this method of cultivation should considerably help to solve the question of labour shortage which all gardeners have to face at the present time.

E. HARRISS

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

Plants Under Glass.

Early Flowering Gladioli.—Such varieties as *The Bride*, *Peach Blossom* and *Blushing Bride* should be potted in quantity, where cut flowers are in demand during the spring months. They succeed best when grown very cool, but after they are well advanced a certain amount of heat will not harm them.

Lilium longiflorum.—Any bulbs not yet potted should now be dealt with; if further delayed the growths and flowers will be weak. Cover the bulbs with an inch of soil in the meantime, so as to leave ample room for top-dressing later.

Pyrus and other hard-wooded plants, such as *Prunus*, *Lilac* and *Azalea mollis*, will now be ready for forcing. Progress will be slow at first, but constant spraying of the buds, with a steady heat maintained, will excite the plants into growth. The quality of the flowers is naturally not so good as may be expected from plants forced at a later date, but these plants give a little more variety when one is becoming tired of the long season of *Chrysanthemums*.

Lily of the Valley.—As retarded crowns become rather weak after this date, a start should be made to force the ordinary crowns. They force with greater freedom after having been exposed to severe frost. To induce a long flowering stem, shade until growth is well advanced; then admit light to get the foliage a nice green colour by the time the flowers are opening.

The Kitchen Garden.

Seakale.—As the strongest crowns are lifted for forcing, any small pieces of roots which are broken off should be preserved for stock. These pieces can be cut into lengths of 4 inches, the larger end cut straight across, and the other end cut in a slanting direction to distinguish the roots when being put in sand for propagation.

Cauliflower.—Where plants are wintering in frames for planting out in spring, abundance of air is required to keep them sturdy. In settled,

mild weather the lights should be drawn off altogether, only replacing them when rain or frost occurs. Slugs are troublesome, and must be watched for carefully.

Lettuce.—Plants growing in frames should have plenty of ventilation during fine weather. The lights should only be left on the frames during rain or frost, otherwise they are very likely to damp and thereby become spoilt.

French Beans.—More sowings should be made in pots as space becomes available. Do not overcrowd by sowing too many seeds in a pot, five or six seeds being sufficient to occupy a 9-inch or 10-inch pot. Grow in a minimum temperature of 60°, and syringe occasionally to prevent red spider obtaining a footing.

Fruit Under Glass.

Early Vinery.—This house should now be closed for starting. A little heat should be turned on, just enough to maintain a night temperature of 50°. In mild weather this can be advanced to 55°, allowing it to rise during the day as the weather may influence it. With such short days and little evaporation taking place, not much syringing or damping of the borders and pathways will be required for several weeks. Once a day will generally be sufficient, and it should be done about 11 a.m. If the Vines are young and have not yet been bent over and tied down, this must be attended to, as it greatly facilitates an even growth of the buds, providing, of course, the Vines are tied up in their proper positions when growth has sufficiently advanced.

The Hardy Fruit Garden.

Bush Fruits.—Where the ground has been properly prepared—and this should be done by trenching in sufficient farmyard manure to nourish the bushes for a long period—planting should now commence. Plenty of room is necessary to obtain the best results. All the Currants should have at least 6 feet between the bushes, while Gooseberries will do with slightly less. Being newly planted they had better be protected from frost. This can be done by placing a small quantity of decayed litter or similar material over the roots when they have been placed in position.

Fruit Room.—Pears require frequent examination, as some decay quickly and infect others if not removed. There is usually a glut of varieties in season at this date, but as they deteriorate quickly if not used when ripe, it is unwise to try to lengthen the supply by keeping them longer.

The Flower Garden.

Helleborus niger.—Flower-buds are now appearing, and if the flowers are to be kept clean, some protection from the rain will be necessary. Spare garden lights, raised on large flower-pots, will do; and where slugs or snails are troublesome a good sprinkling of sharp, gritty sand should be put around the plants as a preventive.

Early Flowering Chrysanthemums.—To avoid any risk of losing the stock by getting the plants killed by frost, the stools should now be lifted and placed in cold frames, covering the roots with sufficient soil to keep them alive until required to be brought indoors for producing cuttings.

The Wild Garden.—With falling leaves from the deciduous subjects there is a certain amount of untidiness present. Herbaceous plants, too, have finished their growth, and where this is not needed for protection the whole should be cut over. Where, however, the remains of the past season's growth are not an objection, they may be left until nearer spring, as, in some cases, it prevents a bare appearance.

Montbretias.—In most districts, particularly wet ones, these plants do not winter very well. To avoid risks, the corms and stolons attached should be lifted carefully and placed in frames, covering the roots with leaf-soil or other light soil. The lights should only be kept on during severe frost or rain. As it will be noticed how the growths commence growing during the shortest period of mild weather, it is all the more necessary to avoid coddling, which would weaken the young growths produced in spring.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

GARDENS OF TO-DAY.

BODNANT HALL, DENBIGHSHIRE.

BODNANT HALL, the residence of Lord and Lady Aberconway, is charmingly situated in Denbighshire on an eminence facing south and west, with a magnificent view of the valley and the river Conway, with the Pennine range of hills in the distance. The mansion was rebuilt about the year 1876 by Henry Davis Pochin, Esq., the father of Lady Aberconway, the present owner.

Leading from one of many terraces is the Azalea and Tiger Lily garden. *Lilium tigrinum* makes a charming autumn display, as it luxuriates here. From this terrace we approach by a flight of steps at each end the water garden or Lily terrace, some 14 feet below the croquet terrace. Here the higher wall is supported by buttresses 15 feet apart, which afford protection to more tender subjects, such as *Magnolia Delavayi* and *Acacia dealbata* (Silver Wattle), 20 feet high, a charming specimen with its silvery foliage. At the southern end of this terrace are borders planted with blue and orange shaded flowers. The corresponding borders at the north end are filled with Roses, mainly Hybrid Teas. The border on the west side of this terrace, about 18 feet wide and in crescent shape, contains yellow, orange and scarlet flowers in gradation. Quite effective, too, it is, the whole edged with *Erica stricta*, 4 feet in width. The Lily tank in the centre, becoming nicely furnished, is 120 feet by 60 feet, with a semi-circular front to correspond with the borders. On the buttress borders

are grand specimens of *Erica codonodes*, 7 feet high and as much in diameter. What a sight such specimens must be when in flower! They seed so freely, and hundreds of seedling plants have been raised from them.

A grand specimen of *Taxus Dovastonii* on the lawn attains 20 feet in height and as much as 40 feet in diameter. Clipped Yew hedges surround this terrace, and at each end openings in the hedge have been made, leading to new terraces below. Access is obtained to these by a grass promenade, 10 feet wide, from which by two flights of circular steps we come half way down to a pergola for Roses, Clematises and Passifloras, with a stone path in which herbs and flowers are becoming established. The walls on the sides of these steps contain *Crinodendron hookerianum*, *Desfontainea spinosa*, *Rhyncospermum jasminoides*, *Eugenia apiculata* and *Solanum jasminoides*, the latter rambling over the stone balustrade for about 30 feet in a glorious mass of blossom.

The walls of the lowest or Canal terrace are planted with *Lithospermum prostratum*, *Campanula garganica* and such like subjects suitable for wall gardening.

The many interesting shrubs and trees which adorn these walls and terraces I will briefly refer to *en masse*: *Mandevilla suaveolens*, *Myrtus angustifolia*, *Rhyncospermum jasminoides*, *Vitis Hendersonii*, a small form of *V. Coignetiae*; *Eugenia apiculata*, *Rosa bracteata*, very fine in flower and foliage; *Stuartia Pseudo-camellia*, 12 feet high; *Magnolia Delavayi*, which flowered this year for the first time (is this the first note of its flowering in England?); *Citrus trifoliata*, *Bignonia radicans*, *Magnolia Campbellei*, 15 feet high; *Eucryphia cordifolia*; *Abelia rupestris*, *Buddleia Colvillei*, *B. amplissima*, *B. Forrestii* and *B. rosea*; *Olearia Fosteri*, *Escallonia montevidensis*, *Hydrangea scandens*, *Tetraptera californica*, *Actinidia chinensis* (20 feet high), *Indigofera gerardiana*, *Plagianthus Lyalli*, *Viburnum odorata*, *Olearia nitida*, *Stauntonia latifolia*, *Davidia involucrata*,

planted by the late Mr. John Bright in 1876; *Abies Douglasii*, planted at the same date, 60 feet high; *Sequoia sempervirens*, 50 feet; *Abies grandis*, 55 feet; *A. Pinsapo*, 40 feet; *A. nobilis*, 60 feet; *A. cephalonica*, 55 feet; *A. bracteata*, *A. albertiana*, *A. polita*; a well-furnished specimen of *Sciadopitys verticillata*, 16 feet; an *Aralia Maximowiczii*, with four stems, fully 40 feet high and as much as 30 feet in diameter; *Acer palmata rubrum*, 16 feet high and 20 feet in diameter; and *Retinospora squarrosa*, 20 feet high and as much across, the shapely specimens of the richest golden colour I had ever seen. Bamboos and Chinese *Rhododendrons* were recently planted in bulk on the hillsides, and appeared to be a success. *Pernettyas* of the mucronata type in many colours berry freely. *Liriodendron tulipifera* was heavily laden with seed-pods. A broad herbaceous border on each side of a winding path provides flowers in profusion.

The soil seems peculiarly suited to Lilies. Some spikes of *L. giganteum*, 9 feet high, among *Rhododendrons*, were carrying two dozen seed-pods. The *Connemara Heath* (*Menziesia polifolia*) is planted in large masses with effect. A hedge of *Erica stricta*, 4 feet wide and fully 50 yards long, makes a fine sight when in flower.

Hardy Fuchsias naturally play an important part in the garden, as they generally do in north walls. Here *Riccartoni* is planted in niches on the tops of the terrace walls, where the plants droop gracefully and are objects of interest.

An interesting feature of the garden is a Laburnum-covered archway over a path; this in spring must be a bright spot. The glass, kitchen and fruit garden appears to be on a scale in keeping with the requirements of the owners.

The whole of this charming garden is in excellent condition, reflecting the highest credit on Mr. G. Gurney, who has held the post of head-gardener for the last nine years. E. MOLYNEUX.

THE MERRYWEATHER DAMSON.

FOR the last three decades I have pinned my faith to the Prune or Cheshire Damson for crop and quality of fruit, but now, on further trial of the Merryweather variety, I am forced to the conclusion that the old favourite is at last superseded; not only is the fruit larger, thus giving more flesh, but the flavour is superior. The growth of the trees, too, is much more vigorous, and, what is important, young trees come into bearing so much quicker. Standard trees planted in the autumn of 1913 have this year given good crops of full-sized fruit, so much so that I shall increase their number considerably. D. M.



BODNANT HALL AS SEEN FROM THE WATER GARDEN.
The walls are clothed to a height of 40 feet with *Pyracantha coccinea*.

Berberidopsis corallina (heavily draped with its showy flowers), *Nandina domestica* (12 feet high), *Camellia reticulata*, *Hydrangea quercifolia*, *Rubus bambusarum*, *Acacia haleana*, *Pittosporum Mayii*, *P. Tobira*, *Carpenteria californica*, *Fremontia californica* in profusion, and *Lapageria rosea*; the last named is usually grown under glass.

The Hall on the west side is thickly clothed for 40 feet high with *Pyracantha coccinea*, literally smothered with berries. *Ceanothuses* in variety luxuriate. *Davidia involucrata*, *Plagianthus betuloides*, *Edwardsia macnabiana*, in addition to *Magnolia Delavayi*, have all flowered here for the first time this year.

On the western side of the terraces is a prettily constructed ravine with a charming rivulet, each side of which is planted with alpine plants. On each side of the stream running through the Dell is the Pinetum, containing many notable specimens, such as *Cedrus atlantica*, 50 feet, and *Wellingtonia gigantea*, 50 feet—these were

SOME "W. G.'S" OF THE GARDEN.

BY THE REV. JOSEPH JACOB.

Poor old "W. G." has gone from us. Few men in their lifetime have had a longer innings of fame than Grace. Grace and Cricket have been, are, and ever will be as inseparable as Nelson and the British Navy, or Samuel Johnson and Boswell.

It is the same in the world of horticulture. There are and there have been varieties of fruit, flower and vegetable which, like the old cricketer, have held a position of singular supremacy for more than one generation of garden lovers, outliving and outdistancing many a meteoric aspirant to fame.

Such a one among Roses is the celebrated Gloire de Dijon. Raised somewhere in France in 1853 by a M. Jacotot, it, according to the dictum of one who has served his turn as the official head of Rosedom, "still remains one of the very best." I catch faint sounds of a chorus of many growers echoing "And so say all of us." For a very long time it remained in single blessedness in my own garden, and although now the Hon. Ina Bingham, Moyesii, Rayon d'Or and several others bear it company, were it ever to come to pass that necessity imposed upon me the choice of one variety only, I fancy it would be the old "Glory" that would still be there. Sixty years of fame! Where are its rivals?

It is dangerous to prophesy unless you are sure. I may be wrong, but unless I am a Dutchman I fancy that as long as Daffodils are known, the name of Emperor will be intimately associated with them. Paxton and the first Crystal Palace; Daffodils and Emperor. It is more than fifty years since its raiser, William Backhouse, sent out his new seedling. Its position in the Narcissus world has never been more secure than it is to-day. It will outlive the Merodon and it will laugh at the Fusarium as mere pin-pricks—frightening and distressing at the time, undoubtedly—but, after all, only occasional incidents in a long life of which no one now living is likely to see the end.

What, again, of the famous Ribston Pippin in pomological circles? It may be through stupid ignorance, but above all Apples it is the one that to me has a name to conjure with. How many generations of Dents have come and gone since it first fruited in their ancient Yorkshire garden? How many of the more modern ones surpass it in flavour and crispness? Can any Worcester Pearmain, any James Grieve, any Cox's Orange, or even the grand old Cornish Aromatic, or the equally old Cornish Gilliflower?

The Paul Crampel Pelargoniums round the Victoria Memorial in front of Buckingham Palace have set people thinking, and some have asked, "What is Gardening?" I answer, "That is." There is very little doubt that "Paul" is the Zonal of the twentieth century, just as in the sixties and the seventies we had Vesuvius and the celebrated tricolour Mrs. Pollock. This last was given as an offering to the magnificent bedding craze which captivated our sires and grandsires. Many will doubtless remember the sensation it caused when its raiser, Mr. P. Grieve, introduced it in 1860 or thereabouts. What talk! what writing in the gardening papers! what fashionable garden was

without it! It is still to be met with, although a more modern rival has almost eclipsed it. But it has had a lengthy innings. [We cannot agree with our esteemed correspondent that the crude blaze of colour created year after year by masses of this Pelargonium in front of Buckingham Palace is a worthy example of modern gardening. Such a sorry scheme is devoid of grace and dignity, and if this is the best that can be accomplished, we would prefer to see it replaced by verdant turf.—ED.]

Turning to Lilies; consider the long reign of the venerable white-headed *Lilium candidum*. It has been a well-beloved inhabitant of gardens great and small for three hundred years at least; how many more I must express by the algebraical "x" and leave students of very ancient gardening history to determine. It is the album vulgare of Gerard "that groweth only in gardens and hath not been declared where it is found wild by any that I can hear of" (Gerard in his "Herbal," 1597, page 39). To use the expressive title that a young curate coined when he wished to record the presence of the new Dean of Ripon at a certain clerical meeting when he was Archdeacon of Birmingham, her "Venerability" cannot be left out of the team. Queen Elizabeth in all probability had it in her garden at Greenwich. It is still "in."

I remember Mr. Bunyard, sen., telling me the history of *Gladiolus brencleyensis*; how it was raised at Brenchley in Kent in the year 1848. Very nearly three score years and ten have gone by, and it is still sold every year by the hundred. It very much looks like making its century.

Were I of epicurean tastes and able to dilate on the toothsome of Kohl Rabi or the good jelly-making properties of the fruit of *Pyrus (Cydonia) japonica*, I might have been able to talk of some culinary Pea, like Gladstone, or some Strawberry, like Sir Joseph Paxton. (Tell it not in Gath! The Director of Kew has kindly sent me some varieties of the Japanese Quince for experiments. I could not resist the recipes which lately appeared in THE GARDEN). But I have said enough, I hope, to set the ball rolling. It would be nice to hear about famous plants of past and present renown which have had "long runs" on the gardening stage. May I conclude by expressing a hope that someone with the requisite knowledge will do this and so give us something to think about as we read our GARDEN in the winter evenings. Who knows what memories and thoughts such reminders may not stir within us? Reveries! Ruminations! Perchance, the old home!

NOTES ON VEGETABLES.

IN the kitchen garden trenching the ground is not nearly enough attended to, especially in soils of a heavy, retentive nature. Trenching the soil from 2 feet to 3 feet deep not only provides a deeper rooting space for tap-rooted vegetables especially, but it warms the soil by the admission of air and conserves the moisture during a spell of dry weather in summer.

Asparagus in Beds should now have the ripened tops removed, cutting down the grass to within an inch or so of the soil. Clear away all weeds, lightly fork over the surface, and cover the bed with 2 inches of half-decayed stable manure or the spent material from a Mushroom-bed.

French Beans.—Make a sowing of five seeds of a good forcing variety—Superlative, for example—in a 4-inch pot, to be afterwards shifted into pots 8 inches in diameter. In a temperature of 65° the plants will grow freely and sturdily if placed on a shelf near the glass. Stockiness in the growth of French Beans is important for their future success.

Broccoli should now be heeled over to the north to protect the heads from frost. Take out a spit of soil on the northern side, heel the plant over, and well cover the stem with soil when taking out the spit for the next plant. The protection of the stems from frost does much to save the plants.

Globe Artichokes should have their bottom leaves cut away, admitting air about the plants. Protect this part from frost with long strawy manure.

Lettuce recently planted in frames should have abundance of air on favourable occasions to prevent the leaves damping. As fast as frames are emptied of their previous crop, fill them at once with plants from the open.

Seakale should be lifted in batches, heeling them in for a time until space in the Mushroom-house, stokehole, or in boxes under the stages of warm houses is available to continue the supply. Moist conditions with complete darkness are necessary to produce well-blanching heads.

Mustard and Cress.—Mustard should be sown every six days, and Cress every four days to give a succession. In pans or cutting-boxes sow the seed thickly, but do not cover it, and if kept moist it will quickly grow.

Potatoes.—Where the tubers were put in heaps at digging-time in various sizes, work is provided for wet weather in sorting them into sizes for use and for planting, using the small and scarred tubers for the pigs. Even if time does not permit of hand picking, the heaps should be turned over to ensure their becoming dry right through. If put together in wet weather, the bulk may cause some heating in the centre, which is detrimental to long keeping. When turned and dried, the heap should be covered with straw or bags to prevent the tubers becoming green by exposure.

E. MOLYNEUX.

A GOOD CLOSE-EATING POTATO.

ALTHOUGH, generally speaking, close-eating varieties of Potato find but little favour with the public, there still remain those who consider the ideal tuber is one which, when cooked, more closely resembles an Artichoke, or a lump of soap, than the ball of flour regarded by many as the standard by which a cooked Potato is judged.

After extended trials of many varieties, I am of opinion that none, of either coloured skin, has greater claims to the distinction of being the best among these close-eaters than International Kidney, certainly one of the handsomest varieties in cultivation, and for this reason alone still regarded as indispensable among a certain class of growers, these chiefly amateurs. Some idea of its close-eating nature may be formed when I say that out of the many hundred varieties—or so-called varieties—we have grown here during the last fourteen years, this sort stands alone, and compared with this, particularly early in the season, many recognised close-eaters among coloured varieties appear to be balls of flour.

Oxford.

F. R. CASTLE.

NURSERY NOTES.

MR. GEORGE PRINCE, LONGWORTH, BERKS.

THERE is a certain charm about Mr. George Prince's Rose garden at Longworth that makes it quite unlike any other Rose garden with which we are acquainted. It is situated in the midst of a very beautiful old Berkshire village some five or six miles from the City of Oxford. Most of the land in the neighbourhood is devoted to pasture and agricultural crops, and the fertile nature of the soil, which is a deep sandy loam, appears to suit all Roses, and Teas in particular, as well as it does the waving fields of Wheat which in summer-time cover many acres in this part of Berkshire. To wander up and down the long rows and hedges of Roses

is probably the best of yellow Roses for walls. It is very free and flowers over a long season.

Favourite Roses.—We have made many visits to Longworth, and there are certain Roses associated with this Rose garden that we always hope to see. Among them might be mentioned Longworth Rambler, that beautiful Noisette with cherry red blooms produced over a long season. It is very hardy and succeeds where many other rambling Roses might fail; moreover, it is nearly evergreen. Rose Fortune's Yellow, described in detail and with so much grace by Miss Ellen Willmott, V.M.H., in *THE GARDEN* for November 6, page 543, is almost as great a success at Longworth as it is at Lockinge, which, by the way, is only a few miles distant, both places being in the historic Vale of White Horse. It requires a warm situation, but is never so fine as when grown under glass. Rose species are well represented at Longworth. *Rosa sinica*,

ENGLISH *v.* LATIN NAMES OF PLANTS.

IT is really time for a firm stand to be taken against the few enthusiasts who are endeavouring to force us to substitute English for botanical names of plants. I see one suggested alternative is Whortleberry-leaved Knot Grass for *Polygonum vacciniifolium*; another, Bloody Rockfoil (it sounds like a "swear" term of endearment!) for *Saxifraga sanguinea*. Latin is not a difficult language to pronounce, and as the Universities differ in their pronunciation of it, the ordinary man may be excused for pronouncing it almost phonetically.

Let us examine the "good Old English names" themselves. Take *Saxifraga umbrosa*, for instance; this is known best as London Pride, but it is also known as St. Patrick's Cabbage, None-so-Pretty and Cheeky Johnnie, and possibly there are many other examples equally confusing. At the time the Old English names originated, the number of plants in cultivation was exceedingly small, and consequently the number of English names was correspondingly small. Honeysuckle meant one particular plant, Alysson meant *Alyssum saxatile* and nothing else; but now that almost daily we are receiving new species from all parts of the world, and there are many Alyssums with yellow, white, or pink flowers, there are not enough good Old English names to go round, and the Anglophile enthusiast must either use a mixture of English and Latin names or manufacture new "Old English" names. This sounds impossible, but, alas! it is the truth, and my apology for rushing into print is a catalogue, just issued by a well-known nursery, which I have read with amazement and alarm. It suggests in all seriousness that we should drop the botanical names, use the "true English" names—as far as they are known—and where they are unknown, or do not exist, to manufacture—"supply" is, I think, the word used—new names for them by rough-and-ready translations of their botanical names. Such a scheme, if ever generally approved, is one that should be taken in hand reverently and not hurriedly, and only by some very competent authorities.

Here are some of the results achieved by the compiler of the new English-Latin glossary. We are in future to call *Achillea filipendulina* a Dropwort Yarrow, but *Achillea Ptarmica* is a Double Sneezewort; but he also terms *Helenium striatum* a Sneezewort—a copper one this time. Again, *Armeria Cephalotes* is a Ruby Thrift, but *Armeria lauchiana* is a Sea Pink. *Heuchera zabelina* is a Hybrid Alum Root, but *H. sanguinea* is a Scarlet Saxifrage. *Mertensia echioides* is a Viper's Lungwort, *M. pulmonarioides* a Virginian Cowslip, *Omphalodes cappadocica* is a Navel-wort, while *O. verna* has the choice of three names. Similar examples are too numerous to mention, but the climax is reached with the unfortunate *Ranunculi*, for *R. Ficaria* is a Pilewort, *R. aconitifolia* is Fair Maids of France, and *R. acris* is Yellow Bachelors' Buttons. A description of a new hybrid between any two of these would be jaw-breaking enough in all conscience!

But some of these names are already fairly well known in some localities, and it is when the compiler lets himself loose on the "new names"



A HEDGE OF ROSES THALIER AND TRIER AT LONGWORTH.

in an atmosphere laden with the sweetest of perfumes reminds one of an Eastern scene where Roses are grown on a very large scale for the sake of distilling attar of Roses from the blooms. By the way, has anyone ever attempted to make attar of Roses in this country? There must be a great waste of Rose blooms year after year, especially in our large Rose nurseries. True, it is calculated to take 100,000 blooms to make an ounce of pure attar, but in the piping times of peace this is sold from 30s. an ounce upwards to even treble that price, while the smallest drop of it is sufficient to fill a large room with the delicious odour of Roses.

Not only are the Rose hedges so fine at Longworth; the rambling Roses look exceedingly picturesque clothing the dry stone walls which are a feature of this old-world village, while *Rêve d'Or*, literally smothered with deep yellow flowers, looked particularly happy and effective growing over the gable end and roof of a stable. This

the Cherokee Rose, and the variety *Anemone*, with lovely soft pink flowers, provided a feast of bloom in June last never to be forgotten.

Teas and Noisettes, with which this Rose garden has so long been associated, are beyond doubt the most lovely of all Roses. *Maréchal Niel*, still the best golden yellow Rose in cultivation, is a great success on a warm border; while *Princesse de Sagan*, *L'Idéal*, *General Schablikine*, *Lady Roberts*, *Medea*, *Mrs. E. Mawley*, *White Maman Cochet*, *Souv. de S. A. Prince*, *Mrs. Foley Hobbs*, *Mme. Constant Soupert* and *Harry Kirk* are to be numbered in the *élite* of the Rose family. It is only fair to Mr. Prince to mention that his successes in the leading classes for Teas and Noisettes at the National Rose Society's exhibitions and at other important Rose shows have been quite unique, although no one would welcome keener rivalry in these classes more than Mr. Prince, who has the successful cultivation of all Roses so very much at heart.

that he helps us to appreciate this Anglophile movement at its full value, for in the process of the translation many of the plants almost completely lose their identity. Thus, *Campanula pulloides* is a seedling of *C. pulla* and its name surely implies pulla-like, but we are to call it Dwarf Purple Bellflower. Again, *Saxifraga scardica* is to be Macedonian Rockfoil, notwithstanding the fact that there is already a perfectly distinct *Saxifraga macedonica* in cultivation. From these examples the reader can judge what the Anglophiles would let us in for, solely in order that, by their adoption, we may be able to drop the botanical names; but can we? Even after we have striven to learn all the local nicknames of the unfortunate plants, in order that when we want an *Achillea* we may, by ordering a Sneezewort, really get an *Achillea*, and not, as seems equally possible, an *Helenium*, is it possible that we can do without the hated botanical names? I fear not, for unless we are to be at the mercy of any unscrupulous supplier of plants, it is always necessary for us to know the botanical names in order to check what we are getting and to compare prices.

It must be borne in mind that very large numbers of the plants we cultivate in our gardens come from abroad—Holland, Japan, Switzerland, and nearly all mountainous countries supply us—and if we know the botanical names of our plants, our path is smooth, as the botanical names are the same in every country. It is useless for the Anglophiles to cumber us with hundreds of newly manufactured "English" names for the sake of preserving the few "good old" ones (which, by the way, include such charming names as Bugwort, Lousewort, Liver-wort, Pilewort and Fleabane!), when it is quite clear that we must know the botanical names as well.

There is a certain amount of hardship, no doubt, in setting out to learn the botanical names, when one is not used to them, and I disliked doing so as much as anyone, but I soon recognised the necessity, as my garden grew, of knowing the names of its inhabitants, and as new plants, bearing only botanical names, came in I soon realised that it was hopeless to try to remember a mixture of English and Latin names. I have for some time given up the unprofitable attempt. This is a practical age and one's time is very fully occupied. To ask us, therefore, to spend it in learning Old English names and acquiring newly manufactured ones is to compel us merely to waste it, for they are, and must increasingly become, as useless to us for our general knowledge of plants as Erse would be to us for general purposes of conversation.

MURRAY HORNIBROOK.

OUR SUPPLIES OF FERTILISERS.

THE President of the Board of Agriculture and Fisheries has appointed a Departmental Committee to make arrangements with a view to the maintenance, so far as possible, of adequate supplies of fertilisers for the use of farmers and gardeners in the United Kingdom. The committee is constituted as follows: The Right Hon. F. D. Acland, M.P. (chairman); Mr. R. H. Rew, C.B., Mr. T. H. Middleton, C.B. Mr. G. J. Stanley, C.B., C.M.G.; Mr. J. Dundas White, M.P.; Mr. H. Ross Skinner; Mr. E. J. Foley; and Mr. R. J. Thompson. The secretary is Mr. H. D. Vigor, 3, St. James' Square, London, S.W.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

VARIEGATED WALLFLOWER (J. S.).—Such variation is not uncommon; incidentally, too, the plant is of little value. Being a growth sport, it could only be perpetuated by means of cuttings, and in all probability these with cultivation would revert to the normal condition. Of no commercial value, it is entirely optional whether you consider the variety of sufficient interest or merit to attempt to increase it. You say nothing about the colour, but, should it prove to be a yellow-flowered variety, we should not consider it worthy of increase. If more striking in the plant than the leaves you send suggest, it might prove attractive grown for leaf effect only. To do this, all flowers would have to be suppressed and the plant increased by means of cuttings, those preferably with a heel. For such cuttings August and September are the best times.

PLANTS FOR TOWN GARDEN IN MAY (W.).—You might with advantage plant such subjects as *Anemone sylvestris*, *Saxifraga cordifolia* purpurea, *S. Clibrani*, *S. bathoniensis*, *S. Miss Willmott*, such *Aubrietias* as *Dr. Mules*, *Lavender*, *Souvenir de W. Ingram*, *tauricola* and *Prichard's A 1*, *Alyssum saxatile compacta*, *Phloxes verna*, *amona*, *atropurpurea* and *Vivid*, *Veronica gentianoides*, *Trollius asiaticus*, *T. Orange Globe*, *Primula cashmeriana*, *Hepstias* in red, white and blue, *Iris pumila*, *I. p. cerulea*, *I. nudicaule*, *I. germanica violacea*, *Mrs. Darwin*, *Queen of May* and *Princess of Wales*, *Aster subcaeruleus*, *A. salsuginosus*, *Dielytra formosa*, *Campanula muralis*, *Anemone Pulsatilla* and *Adonis amurensis*. Single and double *Pyrethrums* would be good, though May is early for them. They are quite useful in early June, and so are the Spanish Irises, which are both beautiful and cheap.

VARIOUS QUESTIONS (J. V. H.).—Any of the soil fumigants should help to get rid of the pest to which you refer. The soil fumigants would be best applied any time when the land is vacant. The named *Antirrhinum*s would have been best perpetuated by means of cuttings inserted in boxes or pots in September, though you may still do so. The chances of successfully rooting the cuttings now are, however, less than six weeks ago. Failing the cuttings, shorten the old plants back slightly, and lift and frame them for the winter. Your plants appear to be of the tall type, and in a wind-swept garden it may be necessary to stake them. If of the tallest-growing type, the plants will still incline upwards in spite of pinching. You do not say the size of the bed for which you require the herbaceous plants; hence, rather than give you any haphazard selection, we would prefer that you repeat that query with the particulars named, in order that a useful list of subjects might be given. The name of the plant sent is *Dielytra exima*.

THALICTRUM DIPTEROCARPUM (Aron).—This plant is hardly likely to be a permanent success in heavy soil, and is better suited to a moderately rich, light mixture of loam and leaf-soil. At the same time it prefers a rather cool root run. It might be well in your case to pot it for the winter and prepare a position on the above lines for planting in March or April next year. The best time to deal with the Red-hot Pokers is March; they may then be divided freely. They prefer rich and deeply cultivated soils. From your description we should suspect that the *Montbretias* have suffered from disease, though this is usually kept in check by annual lifting. Do you, however, replant in the same ground each year? If so, you are courting failure. Dry stored corms should be planted singly in early April in sweet, fresh loam, employing a score or so a few inches asunder to form a group. If you could obtain a little chalk or lime, mingle this with the soil a month or so before planting.

THE GREENHOUSE.

PLANTS FOR A VESTIBULE WALL (E. M. W.).—We are doubtful whether there is sufficient light for flowering climbers to succeed under the conditions indicated by you. The most likely subjects are *Abutilons*, especially *Golden Fleece*, but perhaps as the wall is coloured white you would prefer a crimson kind, in which case *Sanglant* is a good one. The white-flowered *Solanum jasminoides* might thrive there, and, if so, its flowering extends over a lengthened period. There yet remains

one more subject which would perhaps give you satisfaction, namely, *Hibbertia dentata*, whose yellow flowers are borne during the first three months of the year. The slender, twining shoots are clothed with ovate leaves from 4 inches to 5 inches long, and of a pleasing bronzy green tint that should be very conspicuous against the white background. The young leaves and points of the shoots are tinged with crimson. Foliage plants that would thrive there are the climbing forms of *Ficus*, namely, *Ficus repens* and its smaller variety *minima*, with the larger-growing *Ficus radicans*. These would clothe the wall with a dense mass of small, deep green leaves, but no flowers.

BEGONIA TO NAME (R. L. S.).—The Begonia specimen is such a poor one that it is impossible to name it with certainty. We, however, have but little doubt that it is *Begonia Corbeille de Feu*. The derivation of the word *Calliopsis* is from the Greek—*Kallistos*, most beautiful; and *opsis*, an eye.

TREATMENT OF GESNERAS (J. A.).—As the Gesneras go out of flower less water is needed, and they will then go gradually to rest. When dormant the soil should be kept dry, but not allowed to become parched up. By February they will be ready to start into growth, when they may be potted into small pots, shifting them into larger ones when necessary. You ask if they can be wintered in a cool greenhouse, which is such an elastic term that it is difficult to answer. In order to keep Gesneras in a satisfactory state during the winter, they should be in a structure with a minimum temperature of 50°. When they start into growth, more heat will be beneficial. They may be wintered in the pots they are now growing in, or, in order to economise space, they can be shaken out and laid in boxes of fine soil. This, however, should not be done till they are absolutely dormant.

ADVICE ON CRINUM MOOREI (A.).—*Crinum Moorei* will sometimes push up more than one spike from a bulb, and as yours gets stronger it will probably do the same. A height of 4 feet is not unusual for the flower-spike to attain, but this is a feature which depends to a certain extent upon the situation of the plant. If it develops under glass, particularly if at all shaded, the flower-stem is sure to be taller than if it is outside in the open air. You may, if you wish, remove the offsets when the plant is repotted, which is best done in early spring, before growth commences. On the other hand, the plant may be shifted into a larger pot or tub and the offsets allowed to grow unchecked. In this way the *Crinum* in question will form a mass or clump, from which an increased number of flowers may reasonably be anticipated. In the case of these established clumps, annual repotting is by no means necessary. In that case, when the pots are well furnished with roots, an occasional stimulant during the growing season will be beneficial. We are very pleased to learn that you have had such success with this *Crinum* by following our previous advice.

ADVICE ON BEGONIAS (W. F.).—We presume that the Begonias referred to by you belong to the tuberous-rooted section. If so, they will be soon going to rest. When quite dormant they must be kept almost dry. Large or fair sized bulbs may be wintered without any water, but as, in all probability, yours are very small ones, they are likely to perish if parched up. For this reason a little water may be given occasionally, but not sufficient to keep the soil nearly as moist as if the plants were in a growing state. They must be wintered where quite safe from frost. By many, tuberous Begonias are, when dormant, laid on their sides and stored underneath the stage of the greenhouse. This practice does not permit of their condition being readily ascertained, so that as your little plants need careful attention as regards water, they will be best given a good position on the stage. In March, by which time the tubers will be on the point of starting into growth, they may be shaken clear of the old soil and repotted into small pots. A mixture of equal parts of loam and leaf-mould, with a good sprinkling of sand, will suit them well. In potting, the tuber should be buried just below the surface of the soil. Directly the roots take possession of the new compost, the plants must be shifted into larger pots, as if allowed to become pot-bound their growth will be checked.

TREES AND SHRUBS.

FASCIATED SHRUB TO NAME (H. T.).—The shrub sent for identification and examination is not *Azara microphylla*, but *Cotoneaster microphylla*, and the branches are in the condition known as fasciated. This condition is often noticeable in plants that are growing vigorously, excess of vigour apparently inducing an abnormal number of adventitious buds, which in trying to develop cause the fused-like appearance of the branch. The same thing may often be noticed in the flower-spikes of *Lilium auratum*. Under normal conditions an extra number of branches should be formed instead of the fusion in the fasciated state.

HARDY FUCHSIAS (S. W.).—The Fuchsia sent for examination is *F. macrostemma*, a native of South America. It is quite natural for the flowers to be borne in the manner described, and nothing can be done to make the plant more attractive at flowering-time. If the shoots were staked up, they would look unnatural. The best outdoor Fuchsia is *F. Riccartonii*. This forms a bush 6 feet to 10 feet high in the South-West Counties, and would probably grow into a fine bush with you, especially if the branches were protected in frosty weather with Spruce branches or a little Bracken. The most critical period is the first few years, before really hard wood has been formed. The flowers of this plant are conspicuous when in their natural position.

THE GARDEN.

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DECEMBER 4, 1915.

NOTES OF THE WEEK.

An Entrance Fee to Kew Gardens.—The New Year will in all probability bring an important change to the nation's gardens at Kew. For the first time in the history of these gardens an entrance fee, not yet fixed, is to be exacted. We much regret that such a step should be taken, and, apart from the principle, it seems very doubtful if sufficient revenue will be reaped to pay the cost of installing turnstiles and working them. What a hue and cry there would be if a charge were made to enter Hyde Park; and yet in principle it is much the same.

Perpetual-Flowering Carnation Society.—Quite a good exhibition is anticipated at the Royal Horticultural Society's Hall on Wednesday, December 8. In addition to the conference in the afternoon, a further attraction will be the ladies' flower stall, where flowers and plants will be sold for the benefit of the Royal Horticultural Society's War Horticultural Fund. Wounded soldiers and all members of the Overseas contingents will be admitted free.

The White Pine of Mexico.—As a lawn or park specimen this Mexican Pine forms an effective and graceful tree suggestive of *Pinus excelsa*. A tree in the conifer collection at Kew is very attractive with numerous cones at the present time. It is a five-leaved Pine, the grey-green colour of the leaves being very effective on a carpet of grass. *Pinus Ayacahuite* was first introduced in 1840 by Hartweg, who sent home seeds to the Royal Horticultural Society. In its native habitat it reaches 100 feet in height. There are a number of good specimens of *Pinus Ayacahuite* in this country, mostly in the South and West, and the largest are between 60 feet and 70 feet high. The cones are about a foot long, usually slightly curled at the apex.

Produce of Crops, 1915.—From the official preliminary statement showing the estimated total produce and yield per acre of the Potato and root crops in England and Wales in the year 1915, we note that the average yield of Potatoes per acre in England and Wales is estimated to be exactly equal to the average of the preceding ten years; while the total production, although nearly 100,000 tons below that of last year, is some 180,000 tons above the average. Turnips and Swedes have produced less than in 1914 by some 1,644,000 tons, mainly owing to the reduced acreage, although the

yield per acre is also a little below that of 1914 and about two-fifths of a ton below the average.

Tulip Bread.—Paragraphs have lately appeared in some of the daily papers to the effect that owing to the scarcity of corn in Holland and to the difficulty in disposing of the usual number of Tulip bulbs, they have been used to help out the flour in bread-making. When Tulips first came to Western Europe, they were regarded as

sent a hundred bulbs (*c.* 1601-2) to an apothecary in Vienna to be candied.

A Culinary Raid.—When in quite modern times Duc van Thol Tulips became so abundant that they could not be sold, a certain grower in the neighbourhood of Haarlem made an attempt to eat them as food, but declared he could not manage them. The narrator of this episode significantly adds, "perhaps he did not have the

proper recipe for their preparation and cooking." Hence Tulip bread in 1915 will not be the first occasion on which the good people of Holland have made a culinary raid upon the Tulip.

Southampton Royal Horticultural Society.—At a Council meeting of this society, held on November 23, the finance committee presented a report and accounts, showing a deficit on the year's working of between £3 and £4. The Council are to be congratulated on carrying through their programme of three excellent shows, paying all prizes in full, besides giving donations of five guineas to each of the horticultural benevolent institutions. At the recent Chrysanthemum show most of the exhibits were sold in aid of the Southampton Division of the British Red Cross Society, whereby the Council handed over a cheque for £31. A special meeting of this horticultural society is to be held shortly to consider the programme for next year.

A Handsome Gift of Rose Trees.—Owing to the kindness of nurserymen, the Croydon Horticultural Society has been able to add a large number of Rose trees to the Parkhill Recreation Ground. New and up-to-date varieties were given; about ten dozen presented by Mr. George Prince, Oxford; about eight dozen presented by Messrs. Frank Cant and Co., Colchester; about six dozen presented by Mr. Thomas Butcher, Croydon; about two dozen presented by Messrs. Prior and Son, Colchester—a total of over 300 Rose trees in all, the only condition being that one

small, unobtrusive label should be placed in each bed stating the name of the variety of Rose and the name of the donor. In these times generous actions for the benefit of the public should be fully recognised. We hope that the trees will do well under the care of a small sub-committee that has been appointed to look after them.



CONES AND LEAVES OF *PINUS AYACAHUITE*, THE WHITE PINE OF MEXICO.

potentially edible. The merchant of Antwerp who received a cargo of Tulip bulbs from the East in 1562 promptly sampled them with oil and vinegar, thinking them to be a new kind of Onion. The rest of the bulbs, with the exception of a lucky few that he gave to George Rye of Mechlin, he planted in his kitchen garden. Even Clusius, although he knew their value as flowers,

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Antirrhinums Eaten by Animals.—I have read several notes lately about Antirrhinums eaten by animals, and I would like to give readers of THE GARDEN our experiences in these gardens. We have a long border of Antirrhinums each year, Crimson King in the back lines, Pink in the centre lines, and Yellow Prince next to the path. Our trouble for the past two years has not been mice, but tame pigeons picking off the flowers of Yellow Prince, not touching those of any other colour. I should be pleased to know if any readers have had the same trouble.—O. W. TRILL, St. Leonards Park Gardens, Horsham, Sussex.

Lapageria rosea alba.—It is worthy of note that *Lapageria rosea alba*, the white form of the species so beautifully portrayed in your issue for November 20, page 567, has not been in cultivation so many years as might at first be imagined. During the time that the late Mr. William Bradbury Latham, who died less than a year ago, was at the Jardin des Plants in Paris, the only plant in Europe of the white *Lapageria* was under his charge, and Mr. Latham was fond of recording how he believed he saved its life. The plant had been sent to Paris with instructions that the soil in which it grew was of a marly nature, and in such a soil the *Lapageria* had been planted, only to eke out a sickly and dwindling existence. Mr. Latham had, however, early learnt the valuable lesson that plants which in Nature might grow in a particular kind of soil did not always succeed in the same kind of soil when placed under cultivation; and he persuaded his chief to let him wash it out of the marly soil and pot it into rough peaty soil with plenty of sand and crocks, following which the plant grew luxuriantly.—K. G. J.

Scabiosa caucasica.—I was very pleased to see the article on this hardy perennial in THE GARDEN for November 13, page 556. Although the writer speaks at length on the cultivation of *Scabiosa*, he omits to mention one or two points in its favour. For the benefit of amateurs residing at the seaside I must mention that it will grow strongly there; moreover, in sunny positions and in light soils of gardens near towns it thrives splendidly. Its flowers are magnificent for cutting, for they last very well in vases. Your writer does not mention these three points, which are, I think, rather important. We must thank him for giving us the useful cultural details, which will be extremely helpful to many; but in our exposed district we are not successful in raising this plant by the early autumn sowing he advocates. We find it better to sow in a frame in the early summer, and prick out into good rich soil as soon as we can. When the winter comes on, we lift our seedlings, which are now strong plants, and put them in a cold frame for the winter, planting out in March. We find we get splendid plants by this method. The writer of the article speaks about the deterioration of the size of the flowers. We have found that this is remedied by keeping the soil rich, or fairly so, and giving a good position in the sun; also, every second or third year the plants have to be taken up and divided, only the strong portions being then returned to the soil. We do this in the spring or the autumn. *Scabiosa*, when once established, flowers here from June to September. It is a

plant that everyone should grow, for its large "pincushion flowers" are an acquisition to any perennial border.—E. T. ELLIS, Weetwood, Ecclesall, Sheffield.

An Iris Walk of Eastern Splendour.—The Iris borders in the accompanying illustration form a part of a large colour-scheme made some seven or eight years ago. There are fruit trees on either side of the grass walk. The Irises grow between the trees, and in front of them there is an edging of yellow *Violas* (Bullion), which are in full flower at the same time as the Irises. The



BORDERS OF PALE BLUE IRISES IN A READER'S GARDEN.

name of the Iris is *germanica Celeste*, a lovely shade of lavender blue, which, together with the *Viola* mentioned above, gives a very attractive and pleasing effect. The trees provide just enough shade for the plants, and, by keeping the ground nice and moist, the flowering period, both of the Irises and *Violas* is prolonged. I might say that in the spring, as soon as growth commences, we give the Iris clumps a slight top-dressing of light soil, and so keep them in good health. It may be of interest to state that this successful colour-scheme had its origin in a Roumanian garden some twenty miles from Bucharest. After a dusty and exciting motor ride, taken at a speed much beyond our British limits, over roads far from smooth, a small party of Londoners reached their host's country house, and on entering the fine old garden, hidden behind high outer walls, feasted their eyes upon a glorious border of pale blue Irises fringing the orchard in bold clumps of colour that matched the cloudless sky. One of these travellers, having a garden in the making, resolved to appropriate and transplant the idea to Surrey, and he has never regretted doing so.—W. COLES.

Actinidia chinensis.—I was interested to read the note of Mr. James McGran, in your issue of November 20, saying how successfully he had grown *Actinidia chinensis*. I have twice tried it here on a pergola with a south-west exposure, but have failed with it miserably each time. I fear it cannot withstand the droughts we have. Will Mr. McGran kindly say the aspect his plant

has? Mr. E. H. Wilson has, I believe, stated that *Actinidia chinensis* in its native habitat grows 40 feet or more high through trees. I have no idea of approaching this height, but it is so beautiful that I should much like to get it to grow sufficiently to cover a few feet of a pergola. Does Mr. McGran grow his plant on a wall, or where?—B., Weybridge.

Eucalypts for English Gardens.—I cannot quite agree with you (issue November 13, page 552) when you say that the more rounded leaf is immature, and that the dark and sickle-shaped

one is the final. I think—from a good deal of observation which I have made in the South of France and in the few trees which I have seen in England—the shape and colour of the leaf have a great deal to do with the nature of each tree; also the time of the year when the tree is putting out new leaves. There is a tendency in the spring to throw out blue, rounded leaves, which change as the summer goes on, especially in young trees, into the sickle-shaped and harder leaves. The tree grows more in the month of September, if the weather is favourable, than any other month in the year. Round leaves will appear each springtime on an old tree quite high up; for instance, the old trees growing against the walls of the hotel at Ilfracombe is a case in point. I have two trees here in my garden, planted the same time from the same seed. One has round leaves with but few sickle-shaped ones; this tree had the head blown off last October. This summer it threw out another runner, leaves round; it is now about 15 feet high. I planted out each tree three years ago. The other tree, growing within 2 yards distant, has had from its earliest growth very few round leaves; it is 20 feet high and densely covered with sickle-shaped leaves of a hard and dark colour. Both trees are, of course, *E. globulus*. Another tree, a fine specimen about 25 feet to 30 feet high, planted out four years, stem circumference 15 inches, has some fine round leaves on the lower branches, which I would call thoroughly mature leaves, at least four years old; the tree thickly covered in sickle-shaped leaves from

about 12 feet upwards. Unfortunately, it is forked from about 20 feet high, and I topped it early last September. Since then it has thrown out a large quantity of sickle-shaped new growth. Last September I saw the two finest trees of *E. globulus*, I fancy, in England: one at Kingswear, Dartmouth, and one at Paignton, the latter a noble, beautiful specimen tree, which I was told was fifteen years old. There is also a good tree at Torquay in the shelter of the Rock Walk. I have, through the kindness, I think, of your correspondent Mr. Bowles, a number of different Eucalypts growing in my garden, but, unfortunately, my then gardener mixed up the young plants, and I am unaware of the names of the different species. One which I believe to be *Gunni*, planted out four years, flowered well this autumn, a similar, though smaller, blossom to *E. globulus*. This tree is straggly and scraggy, but is at least 20 feet high. *E. amygdalinus* has done well in my garden.—W. A. BATTERSBY, *Frefans Bournemouth*.

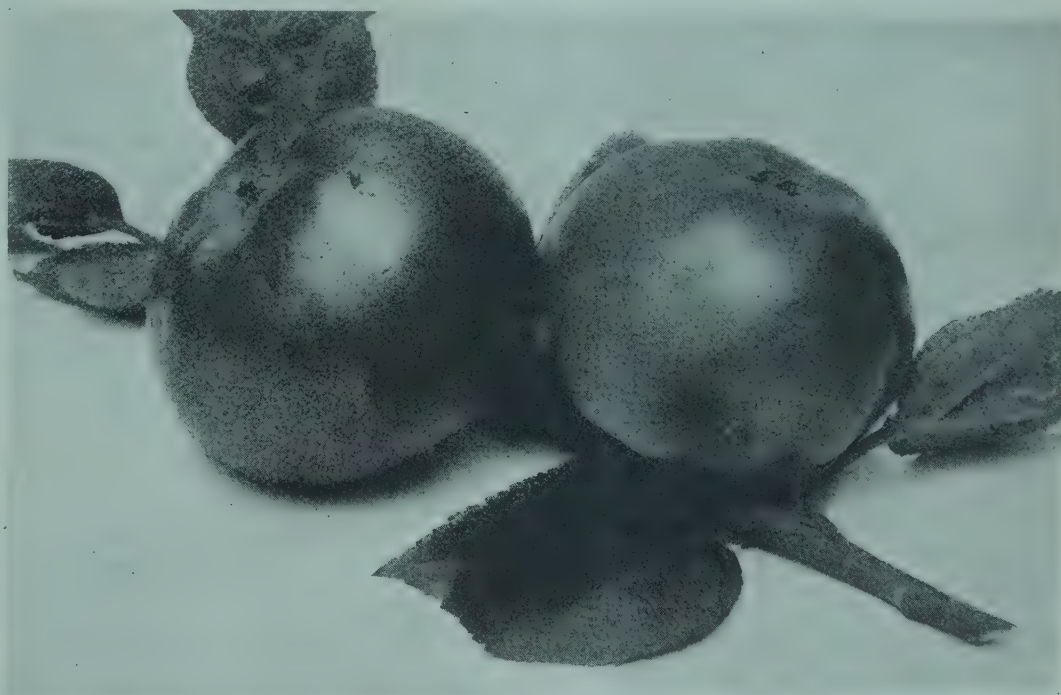
[The foregoing letter was sent to Mr. E. A. Bowles, M.A., F.L.S., from whom we have received the following reply:

"In using the word 'mature' the intention was to follow the use of the word in J. H. Maiden's 'Critical Revision of the Genus Eucalyptus,' the latest and most authoritative voice on the subject. There the leaves from mature, *i.e.*, flowering shoots are always described as 'mature leaves.' It is true he uses 'juvenile leaves' as the opposite; that is to say, for foliage growing on shoots not yet branched into mature and flowering form. Juvenile and immature therefore mean—not what Mr. Battersby takes them for in this note, leaves of more than one year old, whether on growth shoots or flowering shoots—but those leaves produced on the branching portions of the tree that are ready to form flower-buds. The large globulus on the Ilfracombe Hotel illustrates this point well; for, whenever it has had to be trained back, the strong *unflowering* shoots that are thrown out to replace the growth revert to the juvenile or immature forms with rounded leaves, just the same as old Holly, or sometimes *Colletia cruciata*, if cut in hard, will produce the juvenile form again on the strong shoots thrown out just above the injury. A Mulberry also produces deeply cleft immature or juvenile leaves when cut in hard to old wood. *Gaya Lyallii* also, and many other trees with two forms of foliage, might be cited as so doing. The globulus Mr. Battersby refers to as having its head blown off, of course in its new growth reverted to the immature form of leaf; and the other tree with fine round leaves of four years old, naturally enough, has them on the lower branches, that is where they were formed before the tree branched out into the mature sickle-shaped leaves. Reference to Maiden's work would show that it is a general rule for the juvenile leaves of Eucalypts to be rounded, and, in those species that have a mature form of foliage, to be long and narrow and frequently sickle-shaped. *E. cordata* seems to be the only species that we can grow in England which retains the juvenile rounded leaves on flowering branches. *E. pulverulenta* sometimes does, but a tree supposed to be that species at Myddelton House, Waltham Cross, has in the last two seasons produced a second form of leaf on its topmost branches. If Mr. Battersby were to prune severely any portion of his tree with only sickle-shaped leaves, cut it back to stout wood, that is,

it would be as certain to bear rounded leaves on the shoots made from the stump as a cat is to yowl if you tread on her tail; and whenever portions of an old tree have been broken by wind or killed back by frost, round leaves are likely to appear on the strong shoots made to repair the injury. These bluer and rounder leaves of *E. globulus* are so much more beautiful than the dull-coloured, sickle-shaped ones that where several trees are grown it is worth while to prune one back every spring to obtain the blue leaves in abundance. Eucalypts of many species have set flower-buds with great freedom this season, but it seems so probable that the one-in-ten-years' Eucalypt-killing winters is upon us that it may be a case of immature leaves for all of us next year."—ED.]

APPLE LANE'S PRINCE ALBERT.

IN THE GARDEN of November 20, page 565, Mr. H. Turner does well to draw attention to the merits of this Apple, as it is certainly one of the most useful of culinary varieties, and during six seasons' experience in a Gloucestershire garden I have not known it fail to bear a satisfactory crop. The trees require special care in their management, as the growth is very spreading in habit and is not too vigorous. They come into bearing at an early age, and some thinning of the fruit is often necessary, otherwise young trees are liable to have their growth checked, which should be avoided, if possible. On the



BRAMLEY'S SEEDLING, AN INDISPENSABLE COOKING APPLE.

whole I think this variety is more satisfactory as a bush than a standard, and trees that bear full crops should be liberally fed to get the best results.

I find that with us Bramley's Seedling is a better Apple, as it is a more vigorous grower and a particularly free cropper. This year it has proved the best culinary Apple in the garden as regards cropping, and while some varieties were attacked by blight early in the season, Bramley's Seedling escaped untouched. Our orchard trees of this variety were a perfect picture

before the fruits were gathered, and some bushes planted four years ago carried splendid crops, some of the fruits weighing 1lb. each. If I could grow only one cooking Apple, I should choose Bramley's Seedling. If young bush specimens are inclined to be too vigorous after they have been planted two or three years, lift and replant them; this will promote fruitful growth and assist them to crop freely.

J. G.

THE ORIGIN OF THE LOGANBERRY.

BY EDWARD A. BUNYARD, F.L.S.

THE Loganberry is an excellent example of a fruit of uncertain origin for which, when it goes out into the world, it is deemed necessary to provide a respectable parentage. In this case tradition has provided, as in a recent note in THE GARDEN, two forbears of the highest respectability—the Blackberry and the Raspberry. The evidence, however, on inspection fails to substantiate this claim, and the parents cannot, I fear, be termed other than putative.

The known facts are these. Judge Logan, wishing to try all available Raspberries, Blackberries and Dewberries, collected in his garden at Santa Cruz a large number of these fruits.

In close proximity were plants of (a) a Dewberry Auginbaugh (a descendant of *Rubus vitifolius*), (b) Texas Early Blackberry (*R. villosus*?), and (c) a Raspberry (*R. Idæus*), name uncertain, but resembling Red Antwerp. From this *ménage à trois* sprang the Loganberry. The only certain fact is that the mother was the Dewberry. The pollen parent *may* have been one of the neighbours, or, equally, any of the other Rubi in the garden.

It is regrettable to pry thus into a family history of some delicacy, but science knows no scruples.

The experimental method will alone solve this interesting point.

It is worthy of remark that, so far as my experience goes, seedlings of the Loganberry come quite true. Judge Logan found otherwise. His seedlings, while true in growth and habit, were often inferior in fruit. None, however, was found to revert to one or the other parent, thus keeping the secret of their origin. It is, therefore, quite possible that the Loganberry may be a mutation and not a cross at all.

DRY-WALL GARDENS.—I.

A PART from an extensive rock garden, nothing creates greater pleasure than a dry wall planted with rock plants. The occupants simply revel in these conditions, losses are rare, expansion is healthy and prodigal, upkeep is neither great nor laborious, and the floral effect transcends efforts that in other directions are often

The wall built on the ledge system commends itself most for arid counties. Whatever type is selected, the stones should be laid firmly, the joints be carefully filled with soil, and all vacant spaces behind filled up and made thoroughly firm as building proceeds. The soil used should be a good loam, with plenty of grit and a quantity of old crushed mortar rubble or chalk added, as practically all free-growing alpine will grow in this compost, the most notable exception I can call to mind at the moment being *Lithospermum prostratum* and its forms, which detest lime.

Planting Dry Walls.—This should take place when building. In this way larger plants can be used, and it enables the roots to be carried well back into the soil behind. These should not be huddled up, but be spread out to their fullest capacity, so that a large body of soil is thus open for their activities. The crown of the plant in every case should come close up to or within the face of the wall at the time of planting.

The type of plant that succeeds best in dry-wall planting is worth considering, as so much of this

them over morning and evening with clean water; then, later in the season, should a period of drought come, water in copious quantity may be necessary. This is readily applied through a fine rose of Haw's pattern, attached either to the water-pot where the area is small, or inserted in the garden hose where it is extensive. The water must be kept continually on the move, so as not to wash the soil from the joints. It may, however, be noted that watering is rarely necessary with plants in established walls, and should only be resorted to when the plants begin to exhibit clear signs of distress.

In the method of arranging plants in dry walls there is ample scope for artistic taste, and here it is that picturesque combinations of leaf and flower produce endless pleasure and admit of variations to which there is practically no limit.

Coombe Court Gardens.

THOMAS SMITH.

NEW AND RARE PLANTS.

FIRST-CLASS CERTIFICATE.

Lælio-Cattleya Alex (*Lælio-Cattleya* Tunis × *Cattleya aurea*).—A remarkably beautiful and distinct hybrid, having salmon-coloured sepals and petals, and rich crimson, heavily frilled lip. Shown by Messrs. Stuart Low and Co., Jarvis Brook, Sussex.

AWARDS OF MERIT.

Lælio-Cattleya King Manoel.—The parentage is unknown. Sepals and petals coloured reddish orange, the rich crimson lip being conspicuously blotched with yellow near the throat. From J. Gurney Fowler, Esq., Pembury, Kent.

Cypripedium Swallowtail (*C. fairrieanum* × *C. Mrs. Qeburt*).—The dorsal sepal of this beautiful variety is white, heavily spotted chocolate, and with brown slipper or pouch.

Cypripedium Iona Priory Variety (*C. bellatulum* × *C. fairrieanum*).—In dwarfness and habit this shows the influence of the first-named parent. Dorsal sepal white, heavily spotted and lined crimson; lip brownish crimson. A very interesting hybrid.

Cypripedium Priory Beauty.—A Lord Tankerville hybrid, the handsome broad white dorsal sepal copiously spotted blood crimson, the incurving sepals and petals being reticulated with brown. These three beautiful novelties came from Mr. R. Windsor Rickards, Usk Priory, Monmouthshire.

Carnation Louvain.—Quite a good and attractive shade of cerise with salmon. The variety is sweetly scented. Shown by Mr. A. F. Dutton, Iver, Bucks.

Chrysanthemum Louisa Pockett.—A giant white Japanese, in all probability one of the largest yet seen. From Messrs. W. Wells, Limited, Merstham.

Chrysanthemum Aristocrat.—A so-called "single" with half a dozen rows of florets. The colour is yellow.

Chrysanthemum Monica Mitchen (Single).—The florets are coloured red, the disc yellow. These two were shown by Mr. Norman Davis, Framfield, Sussex.

The foregoing novelties were exhibited before the Royal Horticultural Society on November 23, when the awards were made.



A WALL GARDEN IN THE MAKING.

more costly. Then, the actual work of creating such a garden is well within the scope of everyone who delights in laying out and arranging their own garden. The best constructive material is stone, although with patience and skill brick may also be made to answer. A good stone for plant life should neither be too hard nor too soft, the latter especially being avoided, as it is sure to disintegrate under the action of frost. If the edges are fairly square, so much the better, as then the stone is easy to lay, and it enables copious ledges and joints to be arranged with ease and certainty. It is important to observe, in laying the stones, that the edge buried in the wall should be slightly lower than the exposed edge; in this way water striking the face will percolate behind to the roots. A wall built on this system recedes sharply away from the ground level. The incline or "batter" in this case may be as much as 6 inches in every foot of height obtained. In an upright wall the set-back or "batter" need only be 2 inches to every foot of height.

material can often be produced at home. After much experience in this and allied work, I can affirm that permanent success is much greater from the use of small rooted cuttings and seedlings than from plants that have become root-bound in pots. The former are also the most certain and easily managed where a dry wall has to be planted after building, or for making good any vacancies in established walls.

The season for building dry walls extends from October till March, it being possible to carry on the work at any moment when the soil works free. When very wet or in a pasty condition, the work of building should be suspended, as soil put together in this condition shrinks considerably when dry, and this opens a way for air to penetrate into the wall, to the ruin of the plants.

After planting is completed, little further attention is necessary. With drier conditions in March, growth will become active, and about this time it is to the advantage of the plants to dew

NOTES ON AURICULAS.

IT has been stated that the two most critical months for the Auricula are November and December, but the amateur need have no fear on this score if he just gives the plants a little extra attention and keeps them as dry as possible overhead. Plenty of air must be admitted at all times, and this will help to maintain the plants in a healthy condition. During the months referred to very little water at the base will be needed; but if the weather continues congenial and no sharp frosts occur, it will be necessary to look through the collection about once each week to see if they need water. At this season great care is required in regard to giving water. Each example should be studied to prevent overwatering; while, on the other hand, it must not become dust dry. Both extremes are detrimental to the well-being of the Auricula. No water must accumulate in the heart of the plant, or the stem may decay. Some of the lower leaves will turn yellow, and these must be removed directly they will readily part from the stem. If severe weather, is experienced, the frames may be closed at night and a mat or two placed over the lights for protection. This, however, is not really necessary, and no harm is done if the plants are frozen at this stage; but, if possible, I always try to keep the frames frost-proof.

Autumn Bloom.—A correspondent has raised the question of autumn bloom; that is, a few plants push up a spike out of season. No doubt this happens in every collection; at least, I get a few, and it does not appear to make any difference to the spring crop. The buds are pinched off as they develop, and the stem is allowed to die gradually; but a watch is kept for disease at the base, and, at the first sign of any damp, a little powdered charcoal or lime is sprinkled over that part of the plant.

Cleanliness.—This is absolutely essential with all plants, and Auriculas in particular. Green fly is sometimes troublesome, but it is easily destroyed by lightly vaporising the frame directly any is seen. It is occasionally advised to use a brush, but this method is never effective, and it is also a waste of time in these days when so many reliable fumigants can be procured at such a cheap rate. At this period of the year the collection should be looked over and each plant examined. All weeds and mossy substances on the soil must be removed. Dirty pots may be scrubbed, and the plants rearranged so that each has ample space, and then the

whole batch will present a smart and clean appearance.

Seedlings.—In a previous article I advised sowing the seed directly it was ripe, and where such work was carried out, some will have germinated and formed two or three tiny leaves. These should be pricked off about an inch apart into pans of rather light soil, kept just moist, and encouraged to make as much growth as possible. The pans should be placed in the cold frame fairly near the glass, and here they may remain undisturbed till the spring, when each plant should be potted off and given a separate existence. Some of the seeds remain dormant until the spring,

so it is not expedient to discard the seed-pans after the first or even the second batch of seedlings has been removed.

Auriculas in the Rock Garden and Border.—In September, 1914, I planted a nice lot of Auriculas in the rock garden and flower border, and in the spring they produced a charming display. The varieties employed were the vigorous Argus, Thetis, Duke of York, Firefly and the beautiful yellow Queen Alexandra. The latter is a delightful kind and should be largely grown outdoors, while it is also very fine as a pot plant. For outside work the best effect is produced by planting them in batches of one kind, and for preference where



A ROUGH STONE WALL PLANTED WITH ROCK ROSE, CERASTIUM, DIANTHUS AND VALERIAN.

it is slightly shaded from the midday sun. An old lady near my residence grows quite a lot of plants in boxes, and the display last spring was very good. They stand on the top of a wall some 4 feet in height, and receive a lot of sunshine; but it is the only position the lady has got for her favourites. T. W. B.

CAMPANULA PROFUSION.

NOTICE that Mr. E. C. Howell, Cheltenham, issue October 16, page 506, brackets this pretty hybrid with *C. haylodgensis*, and in doing so falls into a common error, the true *Profusion* being very distinct. *C. haylodgensis* was raised many years ago at Hay Lodge, Edinburgh. Its presumed parents are *C. carpatica* and *C. pusilla*. *C. Profusion* was raised by myself about a score of years ago,

open. There is no doubt about the seed parent—that was a white-flowered *C. pyramidalis*, though it apparently played but little part so far as external evidence goes. There are in commerce as already indicated, two plants named *C. Profusion*, the one practically a self-coloured blue flower, the other a sky blue, mauve-shaded variety. It was the self-coloured variety to which the award of merit was made. The presence of the two plants under one name is due either to two seedlings having been pricked off together or to a late vegetating seed. A few days after exhibiting the plant I attempted a further cross, and subsequently sold the stock to the late Mr. Selfe Leonard, conditionally that he should await delivery till the seed ripened. The attempted cross was, however, a failure, no seed being produced. In the meantime flowers of the mauve-shaded variety appeared, and though I tried to eliminate the plant, some roots must have survived and, being presently propagated, got into commerce. The

THE TRAVELLER'S JOY AS A WAYSIDE PLANT.

I KNOW of no plant that is so well named as the Traveller's Joy. At the present time many a hedgerow along our country roads is made to look more cheerful owing to its presence. It seems to prefer a chalky soil, for it is on hillsides and downs overlying chalk that this native wilding is seen at its best. More often than not it is observed clambering over a neglected fence or smothering the surrounding shrubby vegetation, and although it is, as a rule, too vigorous as a garden plant, it is, nevertheless, an admirable subject for the wild garden. In the accompanying illustration it is shown growing over Juniper bushes on a chalky hillside in Surrey, by the side of the old Pilgrim's Way. In the summer-time it is cherished by virtue of its sweet almond-scented flowers;

but at this time of year it is even more to be admired, as it garlands trees and hedgerows, producing masses of its smoky grey, feathery seed-vessels that have earned for it the colloquial name of Old Man's Beard. It is, however, by the name of Traveller's Joy that it is most generally known, and it would be interesting to make sure of the origin of this popular name. Can it be for the reason that this wilding is usually associated with some place of habitation, often clambering over farm buildings and fences, and so frequently marking the approach to a country village? It is so often seen on the outskirts of villages, and I have noticed the same peculiarity in the North of France, where this plant was to the writer a real joy last winter, as it invariably marked the approach to an *estaminet*, a welcome place after long marches across open country. It is well known that man has—although, perhaps, unconsciously—influenced the distribution of many wild flowers. Some, like Corncockle and Cornflower, for instance, grow on arable land, some in ditches, some on the scene of old encampments, and others by the roadside;

and if in olden times *Clematis Vitalba* occurred on the outskirts of villages and hamlets—and there is every reason to support this view—then would the charming name, Traveller's Joy, be full of meaning to the wanderer. C. Q.



TRAVELLER'S JOY ON THE PILGRIM'S WAY, SURREY.

and received an award of merit from the Royal Horticultural Society in August, 1896. As there has been some confusion about this plant owing to two forms getting into circulation under the name, its history, which I gave three years ago to correct an error of Mr. Farrer's, might be of interest. I had been endeavouring for several years to obtain crosses between *C. isophylla* and *C. carpatica* varieties as pollen parents, and *C. pyramidalis* variety as the seed-bearer. I believe I persisted for five successive years before getting a fertile seed. Unfortunately, in the year of securing seed, the tags marking the parentage became detached, and I therefore had to make a guess as to the pollen parent. From the position of the capsule I formed the opinion that *C. carpatica* was the male parent; but when the hybrid developed I came to the conclusion that it was *C. isophylla*. This is made more obvious by the foliage when the plant is grown under glass, and is less apparent when the plant is grown in the

sky blue, mauve-shaded variety is, I believe, the more plentiful; possibly, too, the most charming. Both, however, are good and free, and valuable for their late flowering; and both have the characteristic trailing habit of *C. isophylla*, though it is more highly developed, probably, in the self-coloured plant, which is *C. Profusion* proper. The paler form might for convenience be labelled *C. Profusion* No. 2. Few late-flowering members of the race are more worthy. The nearest approach to my pale blue form in flower that I have seen is known as *C. Tymonsii*, but its habit of growth is distinct. E. H. JENKINS.

FORTHCOMING EVENTS.

December 7.—Royal Horticultural Society's Exhibition of Flowers and Fruit, 1 p.m. to 5 p.m. Vincent Square, Westminster.

December 8.—Perpetual-Flowering Carnation Show, 1 p.m. to 5 p.m. Royal Horticultural Hall, Vincent Square, Westminster.

AN EVERGREEN BARBERRY.

AMONG the numerous species of *Berberis* introduced from China by Mr. E. H. Wilson, *B. sargentiana* promises to be one of the most useful. In appearance the shrub resembles the Indian *B. Hookeri*, or *wallichianum* as it is erroneously named in gardens. Sargent's Barberry, however, is hardier and much more suitable for planting extensively in the pleasure grounds and shrubby borders. It grows into sturdy, thick bushes 4 feet to 5 feet or more in height, with effective, dark green spiny leaves. The flowers are yellow, followed in autumn by purple black fruits.

OUR NATIVE TREES AND THEIR CONGENERS.—I.

By W. BOTTING HEMSLEY, LL.D., F.R.S., V.M.H.

AN article by the writer of these lines on "The Oak Trees of the World," which appeared in the issue of THE GARDEN for July 17, page 351, is considered of sufficient interest to justify the publication of a series of short papers on the general distribution of the arboreous genera represented in the woods and forests of the United Kingdom. The series will

The Evergreen Element.—Unlike the forests of wide areas in other parts of the temperate regions of the Northern Hemisphere, evergreen trees, except where planted, constitute a relatively small and unimportant part of our forests, but as gymnosperms (Coniferae, Cycadaceae and allies) are of earlier origin, according to geological evidence, than deciduous types, this element may be considered first. According to the most

at least half a dozen species among the numerous remarkable forms, both wild and of garden origin. *Taxus fastigiata*, the Irish Yew, is one of the most familiar and striking of cultivated Yews. The Yew is of geological antiquity in the Northern Hemisphere, but apparently not represented in the Southern Hemisphere, either in recent or fossil vegetation.

The Scotch Fir (*Pinus sylvestris*).—From fossil remains it is evident that the Scotch Fir was formerly wild in many parts of England. It is still widely spread in the mountains of South Europe and the plains of North Europe and Central Asia. The genus *Pinus* comprises about seventy-



YEW HEDGES AND HERBACEOUS BORDERS.

include some trees whose existence in these islands is possibly, or probably, due to human agency, but controversial points will not be discussed in this connection. It is a known fact that more than a quarter of the species of flowering plants now growing wild in New Zealand are aliens, and some of these are rapidly replacing native species and changing the face of the vegetation in certain localities. But of this more anon.

The arboreous elements of our woods and forests are of two kinds, namely, evergreen and deciduous.

generally accepted classification at the present time, the Coniferae are divided into two families, Taxaceae and Pinaceae, both of which families are represented in our forests by one species each.

The Yew (*Taxus baccata*).—*Taxus baccata* is a comprehensive and variable species in the eyes of many eminent botanists, and is spread all around the Northern Hemisphere, ranging latitudinally from Japan, the Himalayas, Taurus, Atlas and the mountains of Mexico, almost to the Arctic Circle, in places. Other botanists recognise

five species, encircling the Northern Hemisphere and extending southward to the Philippine Islands, the Mediterranean region, including the Canary Islands, the West Indies and Nicaragua, Central America. No species is known to exist in the Southern Hemisphere, but there is a record of a fossil Pine forest in Eastern Australia. It is, however, uncertain to the writer what is there meant by *Pinus*, because at the present time the species of the large and characteristic Australian genus *Callitris* are called Pines. The greatest concentration of the species is in North

America, on the west coast, and the mountains of Mexico, where they range from the sea-coast to altitudes of 10,000 feet to 14,000 feet.

The Box (*Buxus sempervirens*).—Although the Box, as usually seen, both wild and in cultivation, is of shrubby habit, under the most favourable conditions it assumes tree-like proportions, attaining a height of 30 feet to 50 feet. *B. sempervirens* covers a wide geographical area, extending from the Canaries and the South of England through Europe and North Africa to China and Japan. The genus *Buxus* comprises about a score of species almost or quite restricted to the Northern Hemisphere in Europe, Asia, Tropical

Norway to the Mediterranean, the Himalayas and China. Although most commonly only a large shrub, in favourable conditions it becomes a tree 30 feet to 50 feet high, and exceptionally as much as 75 feet high. Although so numerous in species and so widely spread, *Ilex* is exceedingly rare throughout Africa; only one species is recorded from Australia, and the genus is unrepresented in New Zealand. The greatest concentration of species is in South America, chiefly in the sub-tropical region.

The Strawberry Tree (*Arbutus Unedo*).—The evergreen Strawberry Tree, a member of the Ericaceæ, is limited, in a wild state, within the United Kingdom, to the South-West of Ireland, where it is probably indigenous, and it is recorded as abundant in some localities. Though commonly cultivated in the South of England, it does not seem to have established itself in a wild state. Its range is Western and Southern Europe, eastward to Asia Minor. The genus *Arbutus* numbers about ten or a dozen species, inhabiting the Mediterranean region, including the Canaries, and North America, from Oregon to Guatemala. Other genera now nearly confined to the Mediterranean region and America are *Helianthemum*, *Lupinus*, *Heberdenia*, *Platanus* and *Corema*.

PEACH TREES AND VINES.

I AM a firm believer in early root-pruning, that is, at this season, rather than in February. If Peaches are making extra strong growth and are not fruitful, lift, root-prune slightly, and

replant. Use a peck of slaked lime and two pecks of old mortar rubble to each tree, mixing these ingredients with the soil and making it very firm round the roots again. Next to the bare roots put some gritty soil not containing lime. Give water freely, lay on a surface mulch, and syringe the branches three times each week for two weeks. If the trees are in houses, keep the ventilators open night and day.

Renovating Vines is often found to be necessary in the case of old Vines. Some are so useless that it is better to root them out, remove the old soil, and plant young Vines in fresh soil. But others are greatly benefited by lifting the roots from a cold subsoil and relaying them near the

surface in new loam. This work should be done when the leaves are falling freely from the Vines, also in November. Put mats on the glass over the Vines; keep the leaves and rods moist by syringing every morning; have the new soil ready to replace the old; lift the roots carefully, wrap them in wet sacks or mats while the new soil is being put in; then spread them out evenly and cover them 4 inches deep. Here, again, a surface mulch is beneficial, also a firm rooting medium. Prune the Vines as soon as all the leaves have dropped off. G. G.

SOME RELIABLE PEARS.

UNLIKE the Apple, the majority of Pears are not remarkable for their keeping qualities. The Pears that are grown should be of the finest quality; that is, they should be of good flavour, reliable croppers and disease resisting.

Autumn Nelis is a really fine Pear, in season during the early part of October. In flavour it is somewhat similar to the well-known Winter Nelis, but it has a better constitution and produces larger fruits than that variety. It is best on the Quince stock, and succeeds admirably as a cordon on a south wall.

Louise Bonne of Jersey is too well known to need description, in season a few days later than the last named. It is a good old reliable variety, is first-rate as a wall tree trained in any form, or it will make a good standard. It is a most reliable cropper, and in all ways a good dessert Pear. It is best grafted on the Quince stock.

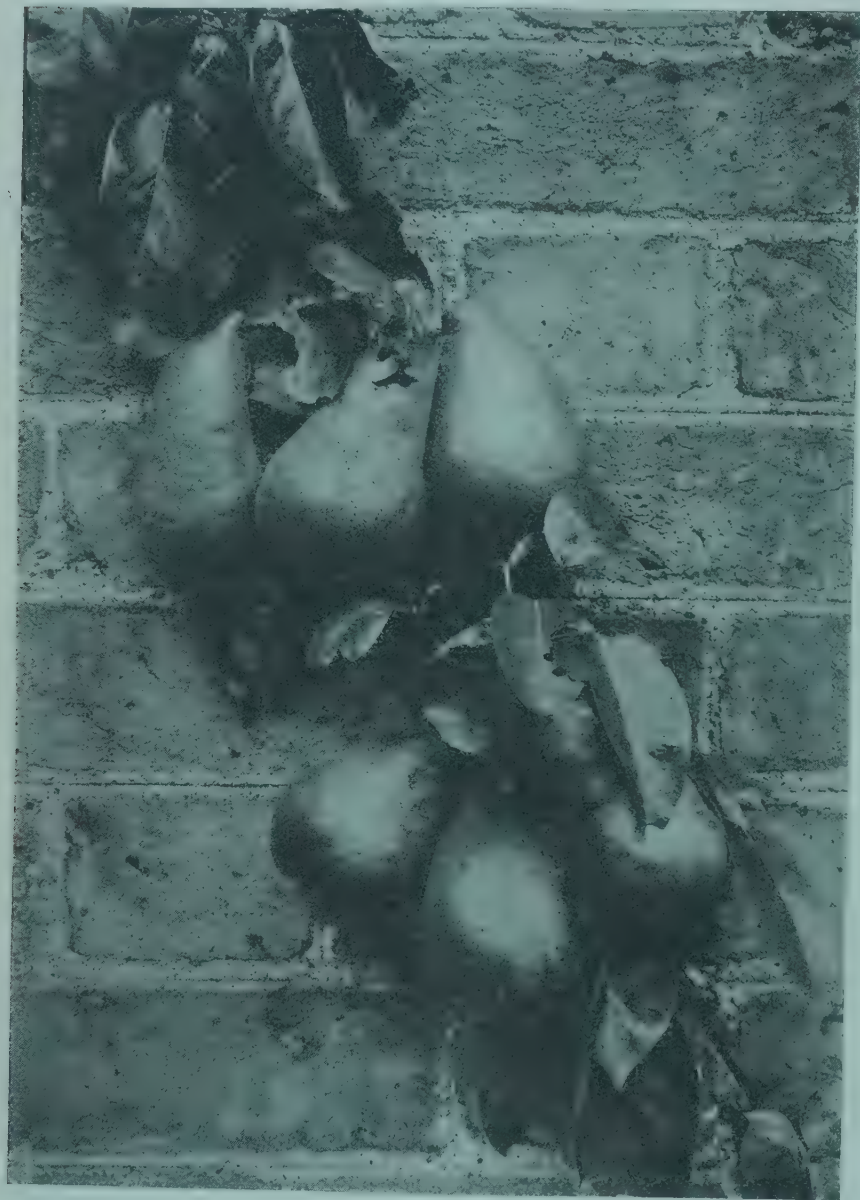
Marguerite Marillat.—Although not so good as Doyenné du Comice in flavour, this variety usually crops well even on a poor soil and in a bad Pear season. It is a large, handsome fruit of sugary, aromatic flavour and beautifully coloured. It is in season during September and early October.

Fondante d'Automne is a good October Pear when grown as a cordon on a south or west wall. It is a most reliable cropper, and will produce large fruit if well cultivated. Quince stock for wall trees.

Doyenne du Comice is undoubtedly the finest dessert Pear. It is a free bearer and healthy; and will succeed trained in any form or as a bush or pyramid, and will bear abundantly in almost any position. The fruit is of good size and attractive appearance, especially if wrapped in tissue paper and placed in heat for two or three days previous to consumption. This variety bears freely in an early stage when grown on the Quince stock; but if on the Pear stock, some years will elapse before a good crop is realised. Ripens in November.

Glou Morceau is a fine December Pear for a warm wall, but is rather subject to disease on cold soil. The tree should be sprayed regularly to prevent fungus, or the fruit may be affected by this disease. A large, handsome Pear of good flavour. Quince stock.

Josephine de Malines is a fine Christmas Pear, perhaps the very best for this season. It succeeds on either the Quince or Pear stock, and bears freely as a cordon, a horizontal-trained tree, or as a bush, but it does not make a shapely specimen. Hard pruning should not be resorted to with this variety, but careful root-pruning is essential.



PEAR MARGUERITE MARILLAT AS A CORDON ON A WEST WALL.

Africa and the West Indies. Absence of the genus from Continental America is noteworthy. *B. balearica* is a handsome, small tree, deserving of wider cultivation in the western milder parts of the kingdom.

The Holly (*Ilex Aquifolium*).—The common Holly, the pride and ornament of our woods and gardens, belongs to a genus of some 300 species of almost world-wide distribution in temperate and warm countries, constituting a family in itself—the Aquifoliaceæ. It is the only native evergreen tree of wide dispersal in the United Kingdom, affording a striking contrast to the arboreal vegetation of Japan, for example. Outside of Britain this species ranges from South

Thompson's is a splendid November Pear, but, unfortunately, is a shy setter, so it should always be planted in close proximity to a free-setting variety in order to become fertilised. It is at home on a south or west wall.

Beurre Hardy and Marie Louise are excellent late October and November Pears, but are so well known that description is needless. The former, grown in any form or position, is especially valuable for its free bearing. The latter prefers a south or west wall, and both succeed on the Quince stock.

RALPH E. ARNOLD.

BOOKS.

The Door in the Wall, or The Story of My Garden*.—This little book is a beautifully illustrated history of the making of a small suburban garden "where four roads meet," somewhere near Manchester. The authoress, Mrs. Duggan, tells us that the design, more or less her own, may fairly claim to have made much out of little, and the excellent plan which accompanies the text more than bears out her statement. We are glad, too, to allude to the fact that the door in the wall "is often left open, especially on Bank Holidays, when many little parties enjoy a personally conducted tour round our corner plot." The objects of the book are two-fold—one, to encourage the women of this country to personally design and cultivate their own gardens; and the second and even more important object is the announcement "that the net proceeds resulting from the sale of this book are to be devoted to founding 'The Manchester Regiment

Beds in Roehampton House, Queen Mary's Convalescent Auxiliary Hospital for Sailors and Soldiers who have lost their limbs in the war.'" The Dean of Manchester, in an excellent preface to this little book, states: "Mrs. Duggan has conceived the generous idea of raising money enough to support a bed for some crippled soldier of the Manchester Regiment in Roehampton House. It is a pleasure to give her any help. She is an expert gardener . . . and no act of sympathy or reverence can, I think, be too great for the gallant regiment which has crowned its honour in the Crimea, in Afghanistan, in Egypt, in South Africa, and elsewhere, by its noble service in the present dreadful war." To this we need only add that the authoress was for many

years the hon. secretary of the Bowdon Horticultural Club, under whose auspices the gardens in the neighbourhood enormously improved. It is a little book with a great purpose.

Rock Gardens and Alpine Plants*.—Anyone about to construct a rock garden will find this work to be a veritable mine of information on the subject. It will be no less valuable to those who already possess such a garden and contemplate alterations therein, while the list of plants suitable for different positions is large and comprehensive. Although the work is edited by Mr. T. W. Sanders, the "Rock Garden" is dealt with by Mr. E. H. Jenkins, and the "Moraine" by Mr. S. Arnott. Each subject is, as can be readily understood when the experience of the contributors is borne in mind, treated in a thoroughly practical manner. The scope of the work is shown by taking Part I., "Construction

neasters, might well have been included. Some of the illustrations are very good, but the coloured plates might have been omitted without lessening the value of the book.

FLORENCE FENNEL.

This vegetable was shown at the Royal Horticultural Society's meeting on November 9 by Mr. Dawkins in his interesting exhibit of vegetables. Although the plants were rather small, they were a reminder that they can be easily grown in this country. In Florence, where it is known as Finocchio, or Fenouil, it is brought to the markets in cartloads, and is a great favourite with working people there. It is grown in other parts of Italy as well, and also to a smaller extent in France. It slightly resembles Celery in shape and habit of growth, as the base swells to a large size when



THE NANKEEN LILY (*LILIUM TESTACEUM*).

An illustration from "The Door in the Wall."

of Rockeries" and its attendant eight chapters. They deal with Selection of Site, Aspect and Position, Materials for Rockeries, Principles of Rockery Building, Formation of Rockeries, Miniature Rock Gardens, The Simple Rockery, and Rock-studded Banks. It will thus be seen that every phase of the rock garden is exhaustively dealt with. The almost total absence of errors shows that the proofs have been carefully read, though, in the index, the word *Fritillaria* has got out of its proper place. Again, in the selection of shrubs for rock gardens, a few of the newer Chinese importations, particularly the *Berberis* and *Coto-*

well grown. I find it succeeds best when sown in shallow drills about 18 inches apart and the plants thinned to a foot in the rows. It prefers rich, well-manured and deeply-worked soil, and when growing requires plenty of water. In about six weeks from sowing the seed the plants are ready for earthing up, and the side growths should be removed. The soil should be drawn up in the same way as for Celery. When the plants are sufficiently blanched, they can be used either boiled and served with sauce, or eaten raw as a salad. Finocchio has a rather aromatic smell, and a sweet taste resembling aniseed. It can be lifted and stored in moist sand when necessary as if left too long in the ground it will run to seed.

W. L. L.

* "The Door in the Wall, or The Story of My Garden," by Mrs. Duggan. Country Life Library; price 1s 6d net.

* "Rock Gardens and Alpine Plants," by T. W. Sanders and other authorities. London: W. H. and L. Collingridge, 148 and 149, Aldersgate Street, E.C.; price 3s. 6d. net.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Winter Cucumbers.—In order to keep the plants in a healthy, fruit-bearing condition, it is essential that they are kept free from red spider. Syringing once a week with a solution of soft soap and sulphur will keep the foliage free from this pest. Stop and tie the shoots regularly, and give them plenty of room. The roots will not be in need of so much water as formerly; a good watering once or twice a week will be ample. An occasional sprinkling of artificial manure over the rooting area is all that is required in the way of stimulants. Keep an equable temperature of about 65°. Should very severe frosts occur, cover the glass with mats or tiffany.

Early Pot Vines.—When the buds show signs of bursting into growth, the temperature may be raised about 5°, increasing it as growth proceeds. Tie up the rods to their permanent position on the trellis as soon as the buds are breaking freely. Lose no time in removing the surplus shoots as soon as it can be determined which are carrying the best bunches. The roots must be well soaked with water when they are in need of it. It is a good practice to give two waterings to ensure the ball of roots being soaked right through. Discontinue syringing when all the buds have broken into growth, but promote a moist atmosphere by damping the walls and paths as often as necessary. If the temperature of the hot-bed declines too low, some fresh materials must be added to it.

Plants Under Glass.

Malmaison Carnations.—These must be kept cool; only in the case of very severe frost will artificial heat be necessary. If not already done, the young plants may now be potted into 6-inch pots. Fibrous loam, leaf-soil, brick rubble and coarse sand form a suitable compost. When potted, the plants must be very carefully watered till the roots have taken hold of the new soil.

Lily of the Valley.—Retarded crowns must be used to keep up a supply of flowers till the turn of the year. Clumps may then be dug up from a well-established bed outdoors and placed on a hot-bed in a heated pit. Cover the roots with soil, and water them with tepid water. Light must be excluded from the pit till the spikes are 4 inches or 5 inches high; the plants may then be gradually exposed to the light.

Allamandas.—These may now be pruned, and if growing in pots they may be placed in a cool house for the winter and kept on the dry side. Cut the shoots back to two or three eyes. Specimens which are growing in a border may be pruned similarly, and kept as dry as possible at the roots.

The Flower Garden.

Border Carnations.—After a spell of frost it will be necessary to examine the plants in the border, and any which have become loose must have the soil carefully pressed around them. The plants must be protected from birds and mice, which often do a deal of mischief. When the ground is dry enough, run the hoe between the plants. Plants in frames must have abundance of air, leaving the lights off altogether whenever the weather is favourable.

Montbretias.—The corms of these useful flowering plants should be lifted annually and stored in boxes in a cold frame. I have tried lifting them every two years, but find they produce better flowers when lifted every year. The ground should be deeply dug and well manured before replanting them in the spring.

Protecting Plants Out of Doors.—No time must now be lost in placing protecting materials over plants which are not sufficiently hardy to stand severe frost. Evergreen boughs or Bracken will form suitable protection for many plants; a few ashes placed round the collars of others will suffice.

Plants in Cold Frames.—These must be carefully examined occasionally and all dead foliage and rubbish removed, or many will be lost through damping. Much care will be needed in ventilating the frames. When the weather is very mild the lights may be lifted off. All the light

possible must be admitted to the plants, and it may be necessary to clean the glass should it become obscured by dirt or fogs.

The Hardy Fruit Garden.

Figs.—As soon as severe weather sets in, Fig trees outdoors must be protected. Release the branches from the walls, tie them in bundles, and cover them with straw or Bracken. Trees which require root pruning may be dealt with at any time from now till the spring when the weather is open. To be successful with Figs, they must be grown in a shallow, restricted border with plenty of drainage.

Outdoor Vines.—The pruning of outdoor Vines may be done now; cut back the lateral growths to two or three buds. If the rods have been trained too closely together, some of them should be cut out; they should be not less than 3 feet apart. After pruning, a portion of the surface soil may be removed and replaced with new compost, which may consist of rich loam, wood-ashes, brick rubble and crushed bones.

The Kitchen Garden.

Cabbage.—Any blanks in the beds must be made good; afterwards run the hoe between the plants and draw a little soil around the stems. Dust the plants with lime as a precaution against slugs.

Carrots.—A sowing of Scarlet Horn Carrot may be made at any time now. A hot-bed of moderate warmth is necessary on which to place the soil. A layer of good soil, about 9 inches deep, should be placed on the hot-bed and made moderately firm. Sow the seeds broadcast and keep the frame close till the young plants are through the soil. Ventilation must then be afforded, more or less according to outside conditions.

E. HARRISS.

(Head-gardener to Lady Wantage.)
Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

Plants Under Glass.

Chrysanthemums.—The main batch of cuttings of all varieties should now be potted as the shoots become large enough for taking. They are best when kept cool from the commencement, so that where a pit or house can be devoted entirely to them, very little pipe-heat, except during frost, will be required. Air must be admitted with caution, or flagging will take place. If the cuttings are to be rooted in frames or hand-lights, the covers should be left off for some time each morning to allow all moisture to escape from off the glass.

Gloriosas which have now thoroughly ripened their growths can be cut over, and the pots containing the tubers laid on their sides underneath the stage of a warm greenhouse.

Tree Carnations.—A start can now be made to propagate these plants. The small growths which appear on the flowering stems root more freely and eventually form better plants than those taken from the base of the plants. Bottom-heat, if used, must be very mild; in fact, it is not imperative, as cuttings root readily if kept in small frames or hand-lights placed on a Carnation-houses stage. Pure sea-sand should be used, or if soil, then it must be very light. A slight shading is necessary for a short period about midday when the sun is bright.

Fruit Under Glass.

Early Peach or Nectarine House.—Where fruit is required during May, a start must be made by closing this house. Very little pipe-heat should be used in the early stages. The trees may be syringed during the mornings of bright days. If the borders were attended to in regard to watering when the leaves were falling, no water should be required for some time to come; but if there is any doubt of the borders being moist, they had better first be watered. A temperature of 50° will be quite high enough during the night, allowing it to advance somewhat during the day.

Succession Houses.—The annual cleaning and general overhauling should be done as early as possible, so that there may be no danger of the buds swelling before it is completed. For the

woodwork and glass use plenty of soft soapy water, and for the trees Gishurst Compound is a reliable dressing. Where disbudding has been done properly, there will not be much need for pruning; but this must be resorted to rather than overcrowd the wood. When there is an abundance of young wood on vigorous trees, it is sometimes possible to remove altogether one or two of the older branches which become bare towards the centre of the tree.

The Hardy Fruit Garden.

Pruning.—Now that the foliage has fallen, pruning can be proceeded with on Apple and other trees growing in the open. Where fruit trees are growing among other subjects and not occupying an orchard by themselves, the system of pruning will greatly depend upon the space available. The common habit of planting fruit trees in vegetable gardens has many drawbacks, and where a separate portion can be devoted entirely to fruit growing, better results are obtained.

The Flower Garden.

Roses.—When new Rose-beds are being made, it is of vital importance to have perfect drainage; especially is this so in low-lying positions situated on either rock or clay beds. Roses thrive in rich soils, so that where new beds or borders are being formed, it should be seen that there is plenty of nourishment for the trees, given in the form of manure, turf and other additions which can be made.

Herbaceous Border.—This should now be cleared entirely of all growths. When possible these should be burnt, the ashes being kept and returned to the soil. All stakes should be put away, in order to prevent confusion and delay when they are again required.

Dahlias.—The tubers which were lifted some time ago are dry and ready to be stored away for the winter. A fairly dry and frost-proof place is necessary, but it is of great importance that it should be cool.

Wild Garden.—Many subjects in this department are not quite hardy, and will require to be protected on the arrival of frost. Tritomas and Gunneras are among the first to suffer during a severe winter. Spruce and Yew branches are splendid for covering, as they are easily removed when mild weather returns. Some plants having a herbaceous habit can be covered with a few inches of ashes, which prove a splendid protection in many cases.

The Kitchen Garden.

Asparagus.—The crowns should now be in good condition for forcing. A mild hot-bed is equally as good as bottom-heat produced by pipes. But, whichever is used, it should be brisk enough to encourage a quick growth, which is necessary to produce tender growths. These should be cut daily as soon as they reach the proper size, and can be kept standing in water until required. Fresh batches should be introduced to heat, not less frequent than every fortnight where a regular supply has to be maintained.

Cucumbers.—This crop during the winter frequently gives trouble owing to various causes, the most common being lack of sufficient heat and light, combined with overcropping. The production of fruits must be restricted, and a little fresh air admitted whenever the conditions outdoors will allow of it.

Chicory.—New batches should be brought into the Mushroom-house as may be required. About a fortnight is usually long enough to blanch the plants ready for use.

Celery.—In view of possible severe frost, which would do damage, some clean straw or Bracken should be got in readiness for covering up the plants during a storm. As this covering is apt to retain an undue amount of moisture if left on, which would eventually spoil the Celery, it is best to uncover the plants on the return of open weather.

Artichokes, Parsnips and Salsify.—A quantity may be lifted and covered with soil in some sheltered quarter where they could be conveniently obtained if required during a continuation of severe frost.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)
Castlemilk Gardens, Lockerbie, N.B.

THE 1915 "DAFFODIL YEAR BOOK."

AS it is possible that the review of the above by the Rev. G. H. Engleheart, which recently appeared in your columns, may influence the character of future Year Books, I should like to make a few remarks upon two points whereon I think that many will differ from the rather *ex cathedra* pronouncements of the reviewer.

The first refers to the illustrations. Some, I know, are of opinion that the "Personal Picture Gallery" creates a less wide interest than floral illustrations which serve to convey to those who are not always able to visit the shows some idea of what the latest best varieties are. But as the remaining available material for the picture gallery must by this time have assumed greatly diminished proportions, and new varieties, on this line, do not come forward in sufficient numbers, the point will settle itself, and need not now be further urged.

We certainly can do without portraits of "old stagers" like Santa Maria, and freaks like Elfin, also without melancholy perspectives of Empress or any other Daffodil; but we do want adequate illustrations of the newer and more important Daffodils which each season brings us.

As to the character of these illustrations I entirely dissent from the views expressed by Mr. Engleheart, who, obviously, is no photographer. Pen and ink outlines, however well executed, would be but poor substitutes for the more exact rendering given by such excellent photographs as we have had in the Year Books.

Colour photographs would undoubtedly be preferable, but expense forbids; but, having regard to the limited circulation of the Year Book, hand colouring might come in, at no very great additional cost. Mr. Engleheart assumes it to be impossible to depict a suggestion of colour differences in a photograph by the use of colour screens, whereas, as a fact, it is not at all inevitable that a flower like Ixion must be shown "just as white all over"—to quote your reviewer—"as Centaur." If Mr. Engleheart studies his "Daffodil Year Books," as I hope he does, attentively, he will have noticed in the 1913 edition an excellent photograph of Narcissus Pedestal, also one of Touchstone, which entirely dispose of his notion on this point. Obviously a suitable colour screen was not, but should have been, used on Ixion, but this does not affect what can be done.

I hope that the editor of the Year Book will not be influenced to discontinue his admirable and useful series of photographic illustrations of the newer best varieties.

The other matter which I should like to notice is that in which Mr. Engleheart condemns as "valueless" Dr. Lower's tabulated lists of crosses. To a novice like myself they prove most useful, both in the negative aspect of warning us off supposed seed parents which will not, or only very rarely, seed, and also, affirmatively, by showing us what crosses will at any rate produce seed, and the general principles of selection of parents which have been productive of the excellent results shown by Dr. Lower at our exhibitions. And what are Mr. Engleheart's objections? Mainly that Dr. Lower calls his crosses "successful." But they

have proved successful within the narrow limit stated by Dr. Lower, in that they have produced seed. That is all he claims. But Mr. Engleheart suggests that it is "absurd" to call a cross "successful" before the seedling has flowered, attacking Dr. Lower's employment of the term on the ground that the cross now called "successful" may, when flowered, prove to be but the result of the "remarkable way" in which "flowers manage to fertilise themselves" despite "the most complete depollination."

I think that even my own limited experience enables me to say that Mr. Engleheart greatly magnifies the importance and extent of the influence which he suggests as practically nullifying the value of Dr. Lower's conclusions. I am inclined to believe that Messrs. Cartwright and Goodwin, in their "Latest Hobby," more accurately state the true position when they say, on page 56, "no doubt certain flowers are often self fertilised, but in most cases we have found that if the operation is properly carried out, and seed is produced, the result generally shows the desired cross to have taken place."

In my own case I have had, on an average, eighty bulbs of Mme. de Graaff planted in rows in my special Daffodil borders. By far the larger number have been each year "left to the insects." As to the remainder, taking the years 1910 to 1915 inclusive, cross-fertilisation has given me 115 crosses producing seed, while during the same six years, and under exactly similar conditions, the other rows, the large majority "left to the insects," gave but fifteen seed-pods, either self or insect pollinated, thus fairly establishing a ratio showing that the proportion of Dr. Lower's 172 crosses possibly due to self or insect pollination, and not to the intended cross, is practically very small, certainly totally insufficient to justify your reviewer's wholesale condemnation of the lists as "valueless," or the use of the word "absurd" in connection with Dr. Lower's work.

I trust that, *pace* the Rev. G. H. Engleheart, the editor of the Year Books will continue to supply information of the character in question, so very welcome to—A NOVICE.

ANSWERS TO CORRESPONDENTS.

THE GREENHOUSE.

STREPTOSOLEN JAMESONII NOT FLOWERING (E. P. D.).—It is quite impossible for us to state definitely the reason of your plant of *Streptosolen Jamesonii* not flowering. You give us no idea of the way in which it is treated, whether grown in a pot or planted out in the greenhouse. As it has flowered so well for the last five years, and you have doubtless continued the same treatment, it would not appear that this is at fault. A possible cause is that the soil is exhausted, and the plant has therefore not strength to flower; while it may be attacked by red spider, to which it is sometimes liable.

TREES AND SHRUBS.

ABNORMAL FRUIT TO NAME (A. J. B.).—The spray enclosed with fruits is *Cydonia (Pyrus) japonica*. When the flowers survive frost, the bushes fruit freely; but the specimen sent is quite abnormal, due to flowering out of season, apparently in late summer.

A DIFFICULT SHRUB TO GROW: CUPRESSUS MACROCARPA (Macrocampa).—*Cupressus macrocarpa* is one of the most difficult of all trees to establish successfully, but when planted in suitable situations, i.e., the milder counties and preferably within a few miles of the sea, it is one of the most satisfactory of shelter trees after it has once become established. The best results are usually secured by planting quite small plants 9 inches to 12 inches high in spring. Those larger than that should be planted from pots, and a stake should be placed to each one to keep it from being blown about, for the branch growth is usually out of all proportion to the

root system, and wind pressure causes the top to sway about and loosen the roots, thereby giving them no chance to form new root fibres. Even small plants must be planted quite firmly to enable them to become established. In the most satisfactory plantations a fair number of losses must be expected.

TO PROPAGATE DOUBLE-FLOWED FURZE (V. C.).—The best way to increase double-flowered Furze is to take short cuttings of the current season's wood, about 4 inches long, in August and insert them firmly in sandy soil in a close but quite cold frame. Make the cuttings with a slight heel of older wood, such as is obtained by detaching them at the junction with the older wood. Make a bed of sandy loam and cover it with silver sand; then, after removing the spines and leaves from the lower halves of the cuttings, insert the cuttings to about a third of their depth. Water them as soon as inserted, and shade them from bright sunlight. Give sufficient water afterwards to prevent the soil from becoming dry, and slightly damp the cuttings after a hot day. Keep them close until new shoots begin to grow, when air may be admitted. They ought to be well rooted by the following April, when they must be lifted carefully and potted singly in 3-inch pots. Replace in the frame and keep close for a few days. When the pots are well filled with roots, place the plants in permanent quarters.

ROSE GARDEN.

RUST ON ROSE LEAVES (Subscriber).—Your Roses are badly attacked by rust, and it would be well to gather and burn the leaves as they fall, as far as this can be done, for the fungus rests on the fallen leaves through the winter to attack the shoots in spring. The disease causes premature leaf fall, and it is therefore very desirable to check it as far as possible. The spraying of the bushes with a rose red solution of potassium permanganate is a means of checking the spread of the trouble.

FRUIT GARDEN.

GRAPES NOT COLOURING (G. H. L.).—Apply sulphate of iron in the form of powder at the rate of 3oz. per square yard, or when topdressing the Vine border mix a 6-inch potful of it with each barrow-load of soil. Be sure, in the first instance, that the soil is deficient in iron, as overcropping is a frequent cause of poor colour.

BLACK AND RED CURRANT CUTTINGS STRUCK LAST AUTUMN (K. F.).—Better results will follow by transplanting the young trees into rows 2 feet apart, allowing the same distance between the trees in the rows, and then planting in their permanent quarters next autumn.

THE CHERRY AS A GRAFTING STOCK (E. Blinco).—Your clean young Cherry trees may be used for grafting any other variety of Cherry on, but no other kind of fruit. How would the Morello Cherry suit you? This variety succeeds very well in bush form, and the birds are not so partial to it. In any case, the bushes could be netted.

APPLE HUDSON'S SEEDLING (J. D. W.).—We have such a rich and excellent collection of late cooking Apples that the seedling sent has no chance of being included among them. Therefore, from this point of view, its further propagation would be of no advantage. But as a local variety, well suited to the neighbourhood in which it appears to do so well, the case may be quite different.

BRANCHES OF GOOSEBERRY FOR INSPECTION (Puzzled).—Your Gooseberries have been badly attacked by aphids during the past year. It would be well to prune out all the malformed shoots and to spray the bushes before the beginning of February with caustic soda, 1lb. to 12 gallons of water. As soon as aphides make their appearance in spring, and while they are still quite small, spray the bushes with Quassia and soft soap, or with a nicotine preparation.

WALNUTS WITH IMPERFECT SHELLS (W. Norwood).—The imperfection in the shell of the Walnut may arise from various causes. 1. It may be a normally very thin-shelled variety—seedling Walnuts differ markedly in this character. 2. Rooks may have pecked the fruits as they were developing, as they are very fond of doing. 3. The young fruits may have been slightly injured by frost, which checked the growth of parts of their outer walls. 4. Possibly there is a deficiency of lime in the soil.

APPLE TREES NEAR THE SEA IN SANDY SOIL (M. P.).—Without protection from high winds and storms and a liberal admixture of loam and marly soil to the sand, we think the prospect of success would be hopeless. The following would be the most likely to succeed: Beauty of Bath, dessert, ripe in August; Devonshire Quarrenden, dessert, September; King of the Pippins, dessert, October; Allington Pippin, dessert, November; and Gascoyne's Scarlet, dessert, Christmas. Grow in the form of low bushes on the Crab stock.

INJURY TO APPLE (B. F. J.).—Your Apple is suffering from two attacks. First, it was attacked by aphides early in the season and their punctures have disfigured it. The remedy for this is prompt spraying as soon as the pests appear in spring. Secondly, the fruit is attacked by the trouble known as bitter-pit. This is due to some physiological cause connected with irregularities in the water supply. The only recommendation that can be made with regard to it is to endeavour to regulate the water supply as much as possible by watering when necessary, and especially by keeping the surface soil well stirred during the summer. The brown spots in the flesh are due to this trouble.

SALE OF WALNUTS (H. B.).—Whether it is more profitable to sell Walnuts green for pickling, or when ripe and ready for dessert, we have no precise information on this point. Against the former, we think that the labour of gathering by hand would tell heavily. We are inclined to favour marketing when ripe for dessert. The demand for Nuts generally, we understand, is good this year. English Walnuts are selling at Covent Garden Market at about 4d. per pound, and French at from 8s. to 10s. 6d. per bag.

PEARS CRACKING (G. S.).—The Pears are attacked by the fungus *Fusicladium pirinum*, which causes the disease known as scab. It would be well to prune out all the diseased portion of the tree, which may be recognised by the cracks on the young shoots and spurs, and then, just before the flowers open and again after the petals have fallen, to spray the trees with Bordeaux mixture.

MISCELLANEOUS.

BIRDS AND PYRACANTHAS (D. G.).—The only way of preserving the fruits is to net the bushes.

LAWN GRASS (A. S.).—The grass sent for identification is the Sheep's Fescue (*Festuca ovina* var.); this particular variety is *tenuifolia*. It is one of the best of all lawn grasses, and seed could be obtained from any of the leading seedsmen, such as Messrs. Sutton of Reading, Messrs. Carter of Raynes Park, Messrs. Dickson of Chester, &c.

NAMES OF FRUIT.—Tielie.—1, Blenheim Orange; 2, Kedleston Pippin; 3, Northern Greening; 8, Golden Spire. All the others were too decayed to name.
C. B. R.—1, Court Pendu Plat; 2, Miller's Seedling.

SOCIETIES.

WARGRAVE AND DISTRICT GARDENERS' ASSOCIATION.

ON Wednesday evening, November 17, Mr. Robert Doe of Parkwood Gardens lectured on "Vine Culture." He is a most successful Grape-grower, and his remarks were listened to with great attention as he gave the members the benefit of his experience. First he briefly touched on the history of the Vine and its cultivation in England, mentioning a few of the most remarkable ones to be found in this country. He then took the following points and referred to each in detail: The kind of house best suited for Vine-growing, heating the same, propagation by means of layers, eyes, seedlings and cuttings; the formation of the Vine border, soil, planting out, manuring, forcing, distributing the pollen, thinning, stoning and colouring. A good discussion followed, and Mr. Doe was heartily thanked for his lecture. Mr. T. Bachelor of Bolney Court Gardens exhibited a fine collection of Perpetual-flowering Carnations, and was awarded a cultural certificate by the judges.

Croydon Horticultural Society.—At the annual general meeting of this society, held on Tuesday, November 22, at the Town Hall, Croydon, His Worship the Mayor of Croydon in the chair, it was unanimously agreed to hold the summer flower show on Wednesday, June 21, 1916, the profits to be given to a war charity to be agreed upon at a later date. As a result of this year's show, a cheque for £102 4s. was handed to His Worship the Mayor of Croydon in aid of the war relief funds.

United Horticultural Benefit and Provident Society.—The monthly meeting of this society was held at the Royal Horticultural Society's Hall on Monday, November 8, Mr. Charles Curtis presiding. Before the commencement of the business a vote of sympathy was passed to Mr. James Hudson, V.M.H. (senior trustee) on the death of his beloved wife, which was carried in silence, all the members standing. Three new members were elected. One member was allowed to withdraw £48 12s. 3d. from his deposit account, still leaving £10 to his credit in the society's books, and one lapsed member withdrew £42 7s. 7d. Two members were also assisted from the Convalescent Fund. The sick pay for the month on the ordinary side amounted to £69 6s. 3d., on the State Section to £19 7s. 8d., and maternity claims amounted to £9.

The War Office notifies that from now onward all papers posted to any neutral European country will be stopped, except those sent by publishers and newsgatherers who have obtained special permission from the War Office. Such permission has been granted to THE GARDEN, and subscribers who send to friends in Denmark, Holland, Norway, Sweden, Switzerland, Spain, Portugal, Greece, and Roumania should order copies to be despatched by the Publisher from 20, Tavistock Street, Covent Garden, W.C.

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THE GARDEN.

No. 2299.—VOL. LXXIX.

DECEMBER 11, 1915.

NOTES OF THE WEEK.

Gardens for Little Londoners.—The London Children's Gardens and Recreation Fund brings health and happiness to little Londoners. Eight gardens have been open all the summer, and by the generosity of an anonymous donor another one will be added next year. The gardens are all in the poorest districts of London. Each child has his or her own plot of ground in which vegetables and flowers make a wonderfully fine show, and great is the delight of the children when the Carrots and Lettuces are large enough to be taken home. Any subscriptions on behalf of this worthy fund will be received by the hon. secretary, Mrs. Lyons, 3, Durham Place, Chelsea, who will gladly give any further information.

Farmers' Red Cross Sale.—The following account, taken from the *Bedfordshire Standard* of December 3, records a splendid price for a bouquet sold in aid of the British Red Cross Society: "The company had now assumed immense proportions, and a ringing cheer went up as Mr. J. A. Whitchurch handed Lady Amptill a magnificent bouquet of red and white Carnations, supplied by Messrs. Laxton. Bidding was brisk, until Mr. J. Arnold Whitchurch became the purchaser at £12 12s., and handed the bouquet back to her Ladyship. It was then split up into button-holes, and Mr. Walter Peacock was soon selling at a lively pace; one button-hole, sold three times, must have realised £5, and the average price was 30s., the bouquet realising the handsome total of £62 11s."

The Hardy Yellow Jasmine.—Of all the flowers that brave the wintry weather, none can excel the yellow Jasmine (*Jasminum nudiflorum*) for cheerful effect. Its leafless twigs are wreathed with bright golden yellow flowers, and many a garden arbour or cottage doorway is made the brighter for its presence from December till the end of February. Pruning should only be carried out after the flowers are over.

Fruits of *Citrus trifoliata*.—Several small fruits (containing seeds) of the hardy *Citrus trifoliata* (*Ægle sepiaria*) were sent by Lady Ilchester from Holland House to a recent meeting of the scientific committee of the Royal Horticultural Society. The fruits had been produced on a tree 9 feet high by 5 feet through, growing in the gardens at Holland House.

Mint Within Three Weeks.—This herb is readily forced, and is generally in much demand

throughout the year. If roots are lifted and placed in brisk heat with plenty of moisture, they will produce growth for cutting within three weeks.

A Useful Winter Salad.—A few roots of Chicory may now be placed in heat. The roots should be planted in large pots or boxes and placed in the Mushroom-house. Bury the crowns just below the surface of the soil. Any ordinary garden soil will be suitable, but it must not be too wet nor too dry.



YELLOW JASMINE GROWING OVER A COTTAGE DOORWAY.

A Pretty Rock Garden Creeper.—Such is *Pratia repens angulata*, both in flower and in berry. The small white Lobelia-like flowers spring out of a dense carpet of tiny foliage in late summer and early autumn. These in turn are followed by purplish pink berries, inclined to Pear shape, causing the plant to be of much interest and beauty in mid-November. Where space allows of growing large patches of this plant, the effect is very striking indeed.

Scabiosa cretica.—*Scabiosa caucasica* and its varieties are much-appreciated hardy perennials. For those who care for wild flowers, *S. cretica* also deserves a trial. This is a native of Greece and Sicily, where it grows on rocks and other barren places. It forms a small shrub from 2 feet to 3 feet high, with entire, whitish foliage. The flowers are not quite so deeply coloured as in good *S. caucasica*, but are large and showy, and no doubt it could be improved in time if taken in hand by some good cultivator. It should be planted in the driest places in the rockery, or in a wall, where it will not suffer from the wet and get all the sun and air that is possible. In Southern gardens it should prove a valuable addition, as it will flower very late in the season and early again in spring. It is easily propagated from seeds and likes any soil, especially that containing lime.

Wintering Globe Artichokes.—This vegetable not being quite hardy in most districts, it is well to have covering material ready to hand where it can be obtained conveniently, should a hard frost come. Stable litter or Bracken is suitable, and should be put round the foliage of each plant. Later on, when all the foliage has died down, it will require rearranging to make certain the plants are properly protected from frost.

Dianthus gracilis.—This charming little plant will one day probably take the same place among the Dianthi that *Viola gracilis* now holds among the Violas. It is a plant with which to work some of the most charming *Dianthus* pictures that ever graced a rock garden. The foliage is that of a super-healthy *D. cæsius*, and is quite as free and more continuous than that favourite species. The flower-stems are light and dainty, branching lightly, and carrying numbers of exquisite soft rosy pink blossoms. There is a glorious freedom about the dainty flowers and an absolute lack of "Dianthus uniformity," there being no stiffness or formality about the blossoms whatever, for they are poised like hordes of tiny pink butterflies upon the slenderest of stems. *D. gracilis* will be an "every garden" plant, as there is no uncertainty about its growth; and the rock gardener, be he specialist or amateur enthusiast, will assuredly not miss this plant once he has seen it in blossom.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Lilium giganteum.—I shall be happy to forward seed of this Lily to anyone who will forward a stamped directed envelope to me at Monreith, Wauphill, Wigtonshire.—HERBERT MAXWELL.

Plum Coe's Golden Drop.—If I were asked to give a list of the best dessert Plums, I should not hesitate a moment in placing the above in the first three. My acquaintance with this variety dates back to my childhood days, and I look upon it as one of the most richly flavoured when properly grown, and will remain on the tree fit for use longer than any other variety I know. Here we grow it on south, east and north walls, and it frequently lasts in fine condition well into November, thanks to its tough skin, which is a minor detail. My advice to your correspondent "E. R. M." is to root out his old, worthless trees and plant young ones, give them liberal and proper treatment, and I venture to predict he will then form a different opinion of this valuable Plum.—EDWIN BECKETT, V.M.H., Aldenham House, Elstree, Herts.

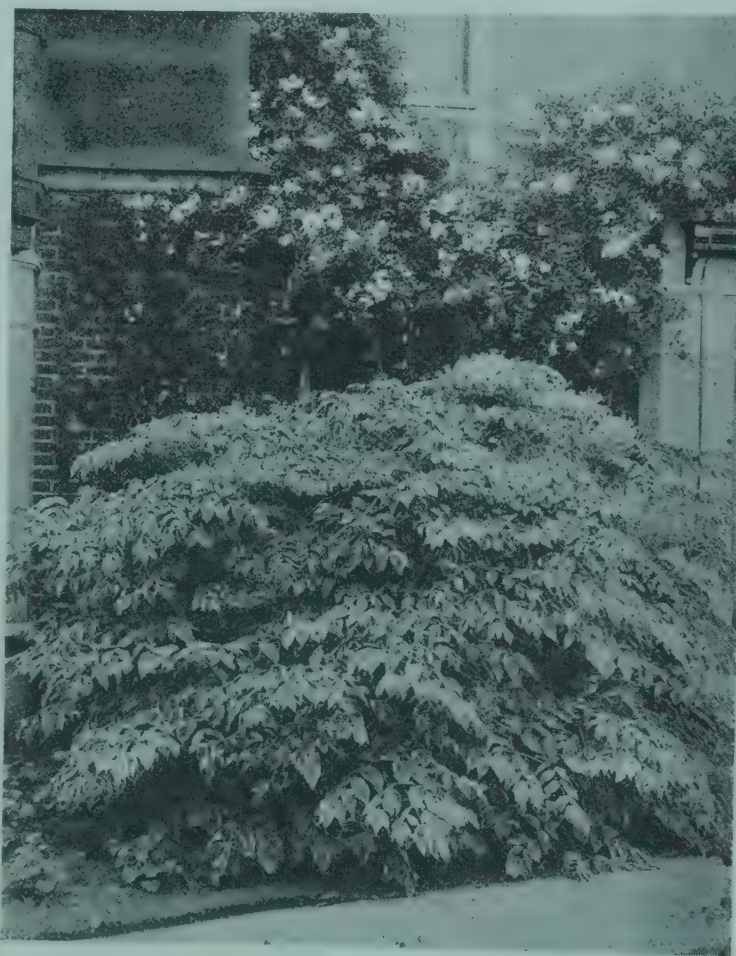
A Handsome Foliage Plant.—I am sending a photograph of *Dimorphanthus* (*Aralia*) *mandschuricus* *variegatus*, which is growing in my garden at Claygate. This interesting deciduous plant is worthy of extended cultivation. It is growing here on a clay soil on a warm south border. It receives no protection in winter, and has stood outdoors for six years. It flowers profusely every year, and bees are particularly fond of it. The climber in the background is *Solanum jasminoides*.—C. D. LANGWORTHY, Beaconsfield Road, Claygate.

Sauce for the Goose.—Yes! It was the account of the Lord Mayor's Feast that did it. I had not bought a solitary book, nor bulb, nor even a flower or plant of any kind for a year. But when I read how M.P.s (who preach economy to us) went and feasted, I forthwith ordered 100 Rose trees, 500 May-flowering Tulips, and several fruit trees; and—I here openly avow it—I feel better now!—ANNE AMATEUR.

Collecting Horse Chestnuts.—Re the leaflets issued by the Board of Agriculture and Fisheries, referred to in THE GARDEN, issue November 27, page 575, it may not be generally known that goats are particularly fond of Horse Chestnuts. Quite recently a visit to a friend revealed the fact that he kept six goats, and in the course of conversation he confessed that one of the "sorrows of his life" at the present time was that Horse Chestnuts had been so scarce this season. He showed me his store, some half-dozen bushels, only a quarter of the quantity he obtained last year. The Chestnuts are fed to the goats, whether in milk or not. I suggested the likelihood of the milk tasting of them, but an immediate sampling of both milk and butter convinced me that such was not so. The utility of the goat is beyond question, as witness the statements of a clergyman in the daily Press

recently that he saved £20 a year by keeping two goats; so it will be seen there is a great use for Horse Chestnuts. I will clinch the matter by stating that I myself keep a goat—a nanny, not yet in milk—and nothing does she "go for" more than the Horse Chestnuts.—HEATHER JOCK, Hants.

The Nankeen Lily.—This handsome Lily, so admirably spoken of by Sir Herbert Maxwell in his article on page 554, issue November 13, is a favourite in the South-West of Scotland, where it appears to do well, and where it is generally free from the attacks of the *Botrytis*, which is so disastrous to its reputed progenitor, *Lilium candidum*. I gather from Sir Herbert Maxwell's remarks upon this point that he has experience of the injury caused by the *Botrytis* on *L. testaceum*. It is, I think, very



DIMORPHANTHUS MANDSCHURICUS VARIEGATUS IN THE WARM CORNER OF A READER'S GARDEN AT CLAYGATE.

infrequent in the South-West of Scotland to see its ravages on the Nankeen Lily, although all too common in the same gardens on the Madonna Lily. A most unorthodox method of treatment which I have seen followed with surprising success is that afforded *L. testaceum* in a cottage garden in this county. In common with other hardy flowers in the border, it is lifted in spring, the border heavily manured with old stable manure, and the bulbs replanted, sometimes in the clumps, as lifted, and sometimes divided. The replanting is effected about the time of the growths showing above the surface, and usually in March or April. The Nankeen Lily seems to enjoy this treatment, and grows with a vigour and appearance of health which are the envy of many. I may add that the soil is poor and sandy naturally, having been at one time

reclaimed from the sea. There is a small proportion of lime in the soil, but none is added.—S. ARNOTT, Dumfries.

Is it Profitable to Grow Vegetables for Exhibition?—As an old exhibitor of twenty-four years' standing, I am a firm believer in exhibitions as means of stimulating interest in the cultivation of vegetables. They are object-lessons not to be lightly despised, but in order to get the splendid specimens seen at our shows much waste is incurred. For a proof, ask a market grower whether it would pay him to grow vegetables of the show type. Again, to grow twelve Leeks—six for a single class, six for a collection—I have had to use a piece of ground 15 feet by 4 feet 6 inches; get out a trench; raise my Leeks in heat or buy the plants; and put them out in May, all to be taken up at the end of September to exhibit. Now, on that same

space, at far less cost, I can get a crop of early Lettuce fit to cut in May and lasting till July; then, by filling up the same plot with Leeks I should get about 130 Lettuces and 130 Leeks. Compare this with a row of Leeks, at the most eighteen in all; my late Leeks coming in when most appreciated and useful. Fancy work must be put on one side for useful, and I assert with confidence that in the growing of show produce there is much waste of land, time and labour which can be put to a better purpose.—JAMES SMITH, Hon. Secretary, Harrow and Roxeth Allotment Society.

English v. Latin Plant Names.—

Your correspondent on this subject, issue November 27, page 585, has no doubt voiced the feelings of many. The giving of "English" names to new plants has lately run riot to a ridiculous extent. Nevertheless, there are some really "Old English" names which have acquired such familiarity (without the contempt bred by the new ones) that we could not do without them. Who but a botanical pedant would use the Latin (or Greek) names for Wallflower, Rose, or Lily of the Valley, for instance? A bed planted with *Cheiranthus Cheiri* edged with *Bellis perennis flore pleno alba* is not to be preferred to Wallflower edged with double white Daisy, as a description. Of such a pedant one might say that

"A Primrose by the river's brim,
Primula vulgaris was to him,
And it was nothing more."

And to extend the use of botanical names to the kitchen garden, which should logically follow, might lead to some curious results after the cook had given her orders to the gardener. Some of the old country names are very quaint. One old lady in a Welsh cottage called *Lychnis chalcidonica* "Scarlet of France," and another flower was "African Butters." It struck me that the use of buttons was probably less prevalent in Africa, at any rate among the natives, than in most other countries. At another cottage a Fern in a pot was named "Mary stitch 'em," which was evidently a polite rendering of *Poly-stichum*.—WALTER DE H. BIRCH, Walton-le-dale, Lancashire.



A WINTER-FLOWERING PLANT FOR THE GREENHOUSE.

Seaweed as a Manure.—Those readers who live on a coast where there is much Seaweed thrown up should not fail to use it this year as a manure. There are two chief sorts of Seaweed, but the best to collect is the shorter and softer kind. It should be collected in the autumn and mixed with half its own bulk of good fresh, strawy manure. It should then be thrown into a heap and turned over once or twice, and in about eight weeks it can be dug into any vacant ground. If stable manure is scarce, merely collect the Seaweed and let it rot in a big heap, but in this case a longer period (three months or more), had better elapse, to give it time to decompose. Seaweed is an excellent manure, and is largely used on the land near Flamborough and Bridlington, but there it is allowed to rot in small heaps on the beach above high-water mark for a few months before it is carted away. It is, of course, specially useful for Asparagus and Seakale, but Potatoes and green crops thrive excellently on ground which has been manured with Seaweed manure prepared as above.—E. T. ELLIS, *Weekwood, Ecclesall, Sheffield.*

Magnolia Delavayi.—Your correspondent Mr. E. Molyneux, referring to the flowering of *Magnolia Delavayi* at Bodnant Hall, Denbighshire, in THE GARDEN of November 27, asks the question whether this is the first note of its flowering in England? No, it is not, for it first flowered at the Coombe Wood Nursery of Messrs. James

Veitch in 1908, the plants having been raised from seed sent home by Wilson about ten years previously. Again, a flowering specimen about 6 feet high, and grown in a tub, was shown at Holland Park in 1913, when a first-class certificate was awarded it. This *Magnolia* was discovered by l'Abbé Delavay, but its introduction we owe to Wilson when travelling in China on behalf of Messrs. Veitch. It is strictly an evergreen, but is less hardier than the other evergreen species—*M. grandiflora*, whose flowers are so handsome. From this *M. Delavayi* differs in its larger leaves, with very long stalks, while the foliage is of a dull green above and glaucous beneath. The flowers are 7 inches to 8 inches across, cup-shaped, and of a creamy white tint. They also possess a pleasing fragrance. Though native of elevated regions in Yunnan, China, this is not hardy in the neighbourhood of London, but it does well against a wall.—H. P.

Buddleia madagascariensis.—The *Buddleias* are very vigorous growers in most cases, and this one seems to be one of the strongest. Although given in Nicholson's "Dictionary of Gardening" as from 3 feet to 6 feet in height, and in Cassell's as 10 feet, it is now about 45 feet high on the roof in the Tem-

perate House at Kew, where it is trained to one of the pillars near the centre of the house. The plant from which the photograph was taken has been in flower since September, and will continue to bloom until Christmas. The panicles are handsome, being from a foot to 15 inches long on the ends of the branches. The side growths are from 8 inches to 12 inches long. The flowers are of a pleasing shade of orange yellow, becoming paler towards the ends of the branches. The leaves are ovate-lanceolate, finely toothed, the upper surface a rough dull green, and a silvery white colour underneath. After flowering, the plant is cut back in spring to within a few inches of the previous season's wood. The shoots make from 6 feet to 8 feet of growth each season. The soil should consist of good loam with a little peat. The growth is always sufficiently vigorous.—W. L. L.

A RARE AUSTRALIAN SHRUB.

IN the latter half of the past century New Holland, or Australian, plants were more largely grown than of late. Many people may remember the fine specimens which used to be exhibited, and now are so rarely seen except at one or two of the large provincial shows, and mainly by one exhibitor. The illustration shows one of the quaintest of the *Hakea* family, which is a family so large that it takes more than three columns of a page in the "Index Kewensis" to enumerate all the species known and described. This plant has been collected at Port Jackson, near Sydney, New South Wales. With the present craze for English names for everything, I think anyone in search of an English name for it might reasonably call it the Barbed-wire Bush, for the leaves are as rigid and strong as wire, and at the end are provided with a very sharp spine. The illustration, three-fourths of the actual size, is reproduced from a water-colour drawing made from a bush growing on the Ile St. Honorat, off the coast of Cannes. It is said to grow about 15 feet high in its native locality. The flowers, peculiar in form, produced in pairs at the axils of the leaves, are white. It is also referred to as *H. gibbosa*. If it were grown in England, it would require the protection of a cool greenhouse, though possibly it might exist, if it did not thrive, in the South-Western Counties. J. T. BENNETT-POE, V.M.H.



HAKEA PINIFOLIA.

(From a drawing by J. T. Bennett-Poe, V.M.H.)

OUR NATIVE TREES AND THEIR CONGENERS.—II.

By W. BOTTING HEMSLEY, LL.D., F.R.S., V.M.H.

The Deciduous Element.—Excluding the Scotch Fir, now existing for the greater part only as a cultivated tree, our native woods and forests are very largely composed of trees having deciduous leaves, and are therefore winter-bare. These may be roughly divided into two classes, namely, into those having individually small, usually greenish or yellowish, unisexual flowers—both sexes, or at least the males, borne in catkins, usually preceding the leaves; and those having more or less conspicuous white or coloured flowers, developed later or with the leaves. Our catkin-bearing trees belong to three families, to wit, the Salicaceæ (Poplar and Willow); the Betulaceæ

9 inches wide, and catkins 4 inches to 6 inches in length. This would doubtless be the juvenile condition. *P. denhardtiorum*, the species found in British East Africa, is figured in the current part of Hooker's "Icones Plantarum" (plate 3050), where it is described as a deciduous tree, 60 feet to 80 feet high, abundant on the banks of the river Tana, from the sea-level up to an altitude of 1,500 feet. It is allied to *P. euphratica*, which is widely spread in warm districts of Western Asia and Eastern Africa. *Populus* is absent from the colder regions.

The Willow (*Salix*).—*Salix* is a genus numerous in species and of almost world-wide distribution,

genus is represented north of the Atlas Mountains in the Nile Valley, in the Soudan, in Nigeria, and in extra-tropical South Africa, as well as in Central Madagascar. Several very dwarf species inhabit the north Polar regions, where they constitute the greater part of the woody vegetation. *S. arctica* is recorded as being common everywhere, and it has been collected as far north as 82°–25'. *S. tetrasperma* is an Asiatic species widely spread in India (though absent from Ceylon), China and Malaya, descending to the tidal forests in Burma. *Salix babylonica*, the common, large Weeping Willow, is supposed to be a native of China. It is now widely spread in other countries, both in a wild and cultivated condition. It is one of the numerous alien plants naturalised in New Zealand, where it has become common on the banks of rivers. Indeed, it is stated that this and *S. fragilis* have given a new aspect to the vegetation of many river valleys, and one or both of these

species owe their increase in New Zealand to vegetative propagation. Willows generally differ from Poplars in having smaller, narrower leaves and erect catkins; but *S. magnifica*, a recent introduction from China, has leaves 9 inches by 6 inches, and very long catkins. Excluding Roses and Brambles, mostly of rambling habit, Willows are more numerous in species in the vegetation of the United Kingdom than any other genus of shrubby and arboreal plants, and they are more numerous and more generally disposed in Temperate and Arctic Europe and Asia than in America.

The Alder (*Alnus*).—*Alnus glutinosa* is the only species of Alder native in the United Kingdom. This species is widely spread in Europe, and it extends to North Africa and eastward to Japan, though unrecorded from China proper, where, however, other closely allied species exist. Altogether about a score of species are known, and they are spread all around the temperature zone of the Northern Hemisphere, and one or more species extend southward, in America, through Mexico and the Andes to Chile. One species is



BABYLONIAN WILLOW (*SALIX BABYLONICA*) BY THE WATERSIDE.

(Alder, Birch, Hazel and Hornbeam); and the Fagaceæ (Beech and Oak). They may be dealt with in the foregoing sequence.

The Poplar (*Populus*).—Poplars are spread all round the Northern Hemisphere, and are almost confined to temperate regions in a genuine wild state; but at least one species inhabits Southern Mexico, and one species occurs in British East Africa, in localities a little south of the Equator. They are mostly trees of large size and ample foliage. The number of species, usually given as below a score, has been augmented by later discoveries in Central and Western China, to something approaching thirty. *Populus lasiocarpa*, recently figured in the *Botanical Magazine* (plate 8625), is perhaps the finest species of the genus. It was first discovered by Professor A. Henry in Central China, and was found later by Mr. E. H. Wilson, who sent a living plant to Messrs. James Veitch and Sons, with whom it flowered in 1914. It is described as having leaves 14 inches long by

yet represented by very few species in the Southern Hemisphere, and absent from Australasia, the Pacific Islands and other large areas. The number of species of Willow is variously estimated as between 150 and 200, and there are numerous natural hybrids. Willows vary in stature from trailing or creeping shrubs, such as the native *S. repens* and *S. herbacea*, to tall trees, occasionally 100 feet high, with massive trunks. *S. fragilis*, *S. alba* and *S. caprea* are the largest kinds indigenous in the United Kingdom. Willows are characteristic in the vegetation of river banks and marshy ground of the temperate and cold zones of the Northern Hemisphere all round the world, but the genus *Salix* is represented in nearly all climates, reaching the altitudinal and latitudinal limits of flowering plants. At least half a dozen species inhabit Mexico, and of these one, *S. humboldtiana*, extends to the West Indies and southward to Brazil and Chile. Willows are rare throughout the great African region, though the

naturalised in South Africa. The common Alder attains considerably larger dimensions in some parts of its Continental area than it does in this country, sometimes reaching a height of 100 feet. According to Lester E. Ward, fossil remains of Alder, Beech, Birch, Oak and Willow have been discovered in the tertiary deposits of Australia, where no recent species of these genera are indigenous. If these identifications can be accepted, there must have been a considerable catkin-bearing element in the Australian vegetation of the tertiary period.

NARCISSUS VIRIDIFLORUS.

So few grow the curious little *Narcissus viridiflorus* that it is a pleasure to receive it from that ardent flower-lover, Miss Alice G. Bickham, Laurel Bank, Dunham Town, near Altrincham. It is worthy of a note, if only to remind readers of the existence of this uncommon, quaint *Narcissus*.

It is, one must admit, not a flower which will appeal to many, but there is about its quaint, long-tubed, small green flowers a touch of interest. Miss Bickham received her bulbs from Tangier, in Morocco; but the habit of the species is given in the "Dictionary of Gardening" as Spain, where it may have been introduced by the Moors. The leaves when fully grown are about a foot in length. The slender scape bears from one to four flowers, which have very long tubes and abbreviated perianth divisions. It flowers in November and December, and should, therefore, have the protection of a frame or cool house. S. ARNOTT.

[Through the kindness of Messrs. Barr and Sons, King Street, Covent Garden, we have recently seen this curious species. The small green flowers are of botanical interest, and their delicious vanilla fragrance compensates to a degree for their more or less inconspicuous character.—ED.]

ROSE MRS. F. DENNISON.

THIS Rose will be found to be one of the best of the 1915 Roses. It has been first rate right through the season with me here. I see the catalogue description drags in Mildred Grant, which is a pity, because the two Roses have not a single point in common beyond the fact that they are both exhibition Roses. Colour, shape, habit of growth, length, and continuity of flowering period, and fragrance, not the slightest resemblance of the one flower to the other can I trace in any one of these particulars. Then why drag in Mildred Grant?

It is damning a good Rose with faint praise to compare it to a Rose that is not everybody's money. In its proper place Mildred Grant is very well—but it is an exhibition Rose pure and simple, although the authorities at Kew had an enormous bed of it for years and may have still; but I always imagined that was intended as an object-lesson of how *not* to do it! So I should like to disabuse the minds of your readers, and assure them that Mrs. Franklin Dennison is not a bit like Mildred Grant. It is quite true that it is an exhibition Rose of excellence; but the habit of growth, the shape, the colour, the freedom of flower, and the fragrance are much nearer the ideal Rose than Mildred Grant is. I do not call Mildred Grant a white Rose, though the National Rose Society's official catalogue would lead one to suppose it is; but Mrs. Franklin Dennison is a good white on the outside of the petal, with yellow shading inside. It is an excellent grower, making many freely branching growths (instead of the solitary pole Mildred Grant prefers as a rule), each of which is capable of producing a fine flower.

Altogether it is a very useful addition to the increasing class of the "all-round Roses," and one that can be recommended alike to the garden Rose lover and the exhibitor. I was nearly forgetting to mention it was raised by Messrs.

S. McGredy of Portadown, Ireland, and is being distributed this year. It is named after the wife of one of our keenest amateur rosarians.

Southampton.

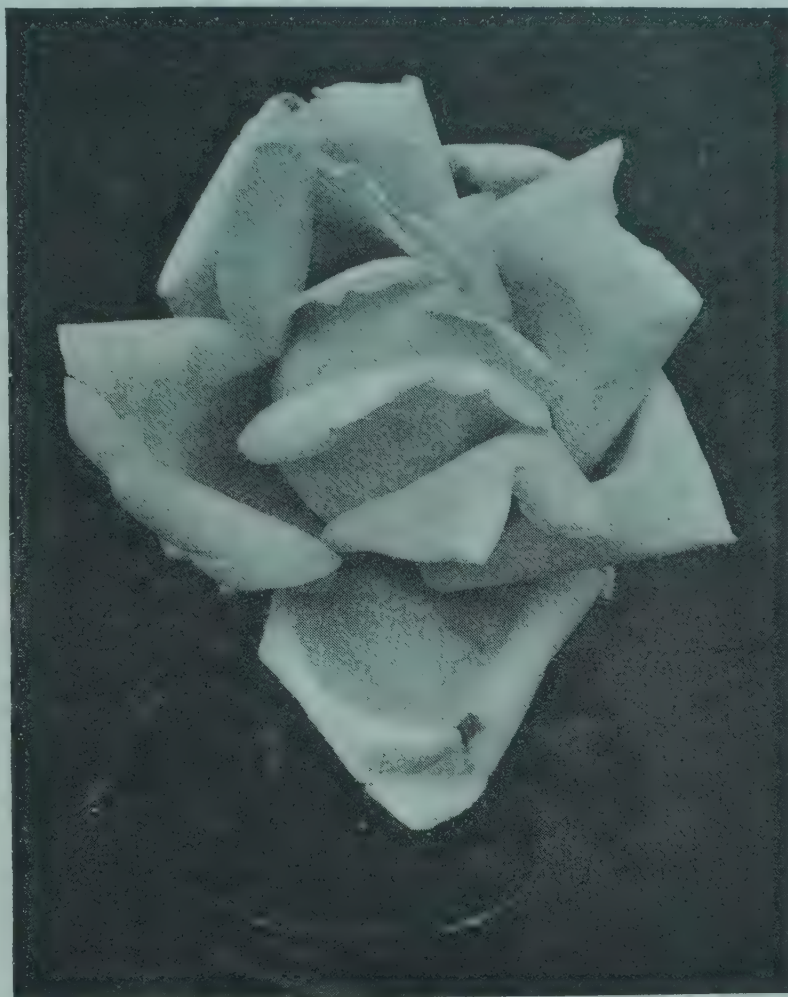
HERBERT E. MOLYNEUX.

THE BARBADOES PRIDE & ITS LATIN NAME.

I RECOGNISED an old Indian friend in your illustration on page 577, issue November 27, but she seems to have married again, as I never knew her under the name of *Cæsalpinia pulcherrima*. Surely her proper name is *Poinciana pulcherrima*, a sister of the gorgeous

pulcherrima is generally known as the dwarf *Poinciana*. It is also called 'Barbadoes Flower Fence,' 'Barbadoes Pride' and 'Bird of Paradise Flower,' while the Chinese call it 'Peacock's Crest,' and it is the 'Fleur de Paradis' of the French. It was introduced into Holland from Amboyna about 1670, and was growing under glass in the Chelsea Physic Garden about twenty years later. In Vol. XXV. of the *Botanical Magazine* there is an excellent drawing of it from a plant which had flowered in the collection of the Comtesse de Vaudes.

"The Sub-Order *Cæsalpinieæ* is subdivided into seven tribes by Bentham. Under Tribe II., *Eucæsalpinieæ*: 'Leaves 2—pinnate. Sepals free. Petals usually 5, subequal. Ovary-stalk free in the bottom of the calyx-tube; ovules 3—oo, rarely 1. *Pellophorum*, *Mezoneurum*, *Cæsalpinia*, *Hoffmansygia*, *Hæmatoxylon*, *Pterolobium*, *Gleditschia*, *Poinciana*, *Parkinsonia*.' The *Poincianas* are natives of the Tropics, and were named by Tournefort in honour of de Poinci, Prefect of the Antilles. They have been confused with the *Cæsalpinias*, but the calyx segments are valvate, whereas they are strongly imbricate in *Cæsalpinias*. There are only about six true *Poincianas*, viz., *boiviniana*, *compressa*, *elata*, *lutea*, *Playfairi* and *regia*; whereas there are probably some eighty or more *Cæsalpinias*. Swartz united *Poincianas* with *Cæsalpinias*, and he was followed by several authorities; but Gærtner and also Kew kept up the original division as now accepted. *Poinciana regia* is often confused with *Cæsalpinia pulcherrima*, but the latter may be readily distinguished by its much imbricated calyx segments, smaller flowers and very long exserted stamens."



ONE OF THE BEST OF NEW ROSES: MRS. FRANKLIN DENNISON.

Poinciana regia? I fetched down my old "Firminger," and found I *was* right: "*Poinciana Pulcherrima*—Peacock Flower—Barbadoes Pride—Flower Fence—Native name *Krishn-churun*." "Firminger" gives *Cæsalpinia* as quite different: "*C. coriaria*, a tree—American Sumach. *Grahami*, handsome very thorny shrub. *Paniculata*, a climber. *Sepiaria*, thorny shrub for fencing." *Cæsalpinieæ* is a Sub-Order under *Leguminosæ*, but as a name under that Sub-Order is confined to the four kinds I have quoted.

EDWARD M. HADOW.

Uffington Vicarage, Faringdon, Berks.

To these observations Miss Ellen Willmott, F.L.S., V.M.H., the writer of the previous note, kindly replies:

"The beautiful shrub illustrated in THE GARDEN of November 27 under the name of *Cæsalpinia*

free flowering and yet keep its height moderately low. It, however, requires quite as much room as a bushy *Abutilon*, for its branches are rather long, and they are clothed with leaves 6 inches to 7 inches across. The white flowers appear from near the points of the branches in large, round, pendulous heads, and are very attractive, for a plant of moderate size may at one time bear from fifty to one hundred heads of flowers.

Although not everybody's plant, it might certainly be grown by those people who have a large conservatory, temperate house, greenhouse, or corridor to furnish. The chief point to remember about its culture is that it should be cut back well in spring; then a succession of flowers may be obtained from July till early winter.

DOMBEYA MASTERSII.

It is only in those gardens where a large greenhouse is available that this plant can be grown with advantage, for in its native country, Tropical Africa, it grows into a moderate-sized tree. Fortunately, with some other members of the Order *Sterculiaceæ*, it stands cutting back fairly well; therefore it is possible to grow a plant to the necessary age for

DRY - WALL GARDENS.—II.

SOME SUITABLE PLANTS.

SUPPLEMENTING my last week's notes on dry-wall gardens, I now append lists of plants that with quite ordinary care can be successfully established in dry-wall gardens, and that call for the minimum of attention afterwards.

By way of preface, let me observe that the habit of each must be taken into account when planting; for instance, those that spread into hanging mats should not be placed too close above tufted or erect-growing kinds; rather reverse this arrangement, so that *Aubrietia*, for example, is placed below tufted *Dianthus* or *Armeria*. In this way the plants find room for healthy expansion, and it also frees one from the perpetual worry and annoyance of finding vigorous plants smothering out weaker or less happily placed neighbours.

- | | |
|--------------------------------------|---------------------------------------|
| * <i>Campanula pulloides</i> . | <i>Lithospermum prostratum</i> |
| " " Profusion. | Heavenly Blue. |
| * <i>Calamintha alpina</i> . | * <i>Lychnis Viscaria splendens</i> . |
| * <i>Dianthus cæsius</i> . | * <i>Morisia hypogæa</i> . |
| " " graniticus. | * <i>Enothera riparia</i> . |
| " " microlepis. | * <i>Onosma taurica</i> . |
| " " neglectus. | * <i>Phlox amœna</i> . |
| " " plumarius. | " " reptans (verna). |
| " " suavis. | " " subulata in variety. |
| * <i>Draba aizoides</i> . | * <i>Phyteuma orbiculare</i> . |
| " " dedeana. | * <i>Papaver alpinum</i> . |
| * <i>Dryas octopetala</i> . | " " nudicaule. |
| * <i>Erysimum pulchellum</i> . | * <i>Plumbago Larpentæ</i> . |
| * <i>Edraianthus dalmaticus</i> . | * <i>Saponaria ocymoides</i> . |
| " " pumiliorum. | * <i>Saxifraga Aizoon</i> variety. |
| * <i>Geum montanum</i> . | " " burseriana. |
| * <i>Globularia tricornocantha</i> . | " " Cotyledon. |
| * <i>Gypsophila cerastioides</i> . | " " lingulata. |
| " " repens. | " " longifolia. |
| * <i>Hutchinsia alpina</i> . | " " marginata. |
| * <i>Hypericum Coris</i> . | " " Salomonii. |
| " " fragilis. | * <i>Sedum brevifolium</i> . |
| " " repens. | " " corsicum. |
| " " reptans. | " " dasyphyllum. |
| * <i>Iberis jucunda</i> . | " " kamschaticum. |
| " " sempervirens in | " " pulchellum. |
| variety. | " " rupestre. |
| * <i>Iris stylosa</i> . | " " spurium. |
| * <i>Linum narbonneuse</i> . | * <i>Sempervivum</i> in variety. |
| * <i>Lithospermum Gastonii</i> . | * <i>Silene alpestris</i> . |
| " " graminifolium. | " " Schafta. |
| " " prostratum | * <i>Thymus Serpyllum</i> in |
| | variety. |

ORCHIDS FOR A COOL HOUSE.

[In Answer to a Correspondent.]

IN a cool Orchid-house the average temperature during the winter months should be 50° Fahr., with a rise of 10° or so in summer. Blinds will be necessary to protect the plants from all strong sunshine, and if wooden lath blinds are chosen, they could also be utilised in frosty weather to economise fire-heat. The atmosphere must be kept more or less moist according to the season. This can hardly be overdone during hot, dry weather, but in autumn and winter much less moisture in the atmosphere will suffice. Ventilation must be afforded on all favourable occasions, but discretion should be exercised to prevent a direct draught passing over the plants. Both the top and bottom ventilators may be used during calm, moist weather, but at

other times only one set need be open. Moreover, it is better to open the whole of the ventilators (either top or bottom) an inch or so than one or two to their fullest extent. No one who does not employ a man with some knowledge of Orchids should attempt to grow them on a large scale without first feeling their way by experimenting with a few plants.

We now give a list of Orchids suitable for a cool

house. First and foremost is the chaste *Odontoglossum crispum*, with the many beautiful hybrids from this species. These should form the bulk, and if a number of plants are grown, a few will be in flower practically at all seasons. Other *Odontoglossums* embrace *O. Edwardii*, *O. Hallii*, *O. harryanum*, *O. Pescatorei* and *O. triumphans*. All of them flower in the spring and early summer. Hybrid *Odontoglossums* are very numerous, and include *O. amabile*, *O. percultum*, *O. ardentissimum* and *O. Rolfeæ*. As a general rule they are more easily grown, and bloom at various periods of the year. *Cypripedium insigne* varieties, *Epidendrum vitellinum majus*, *Cattleya citrina*, *Disa grandiflora*, *D. Luna*, *Cochlioda noetzliana*, *Sophranitis grandiflora*, *Zygopetalum Mackayi*, *Oncidium concolor*, *O. tigrinum*, *O. varicosum*, *O. ornithorynchum*, *O. macranthum*, *O. superbiens*, *Cymbidium lowianum*, *C. giganteum*, *C. eburneo-lowianum*, *Lycaste Skinneri*, *Masdevallia coccinea* varieties, *M. ignea*, *M. tovarensis* and *M. veitchiana grandiflora*.

The *Odontiodas* are hybrids between any of the *Odontoglossums* and *Cochlioda*, usually the scarlet *C. noetzliana*, and on account of their beautiful colour a few should be added. They require the same treatment as *Odontoglossums*, and the season of flowering depends upon the parentage. A few desirable kinds are *Odontioda Charlesworthii*, *O. Bradshawia*, *O. Cooksonæ*,



A LOW WALL PLANTED WITH ARABIS, GYPSOPHILA, IBERIS AND DIANTHUS.

Naturally, in dry walls of a semi-wild character, one rather enjoys the rivalry that is always more or less in evidence and is particularly noticeable when plants appear spontaneously, as they frequently do from seed deposited in the wall, either by the agency of wind or birds. No doubt the majority of these efforts rather upset our orthodox or preconceived notions of what we want. In some, however, a rare beauty is discerned, and their suggestiveness will always convey some truth to discerning minds. Except in walls of the latter description, I would suggest that planters be sparing in the use of such shrubby plants as *Helianthemum* and *Cistus*, unless boldly grouped in parts by themselves, for the reason that they soon attain unwieldy dimensions, the foliage prevents moisture falling upon plants below, and the roots set up arid conditions as far as they extend; hence plants of finer growth do not readily succeed in their company.

A LIST OF PLANTS FOR SUNNY WALL GARDENS.

- | | |
|---------------------------------|-------------------------------------|
| * <i>Alyssum alpestre</i> . | * <i>Arenaria montana</i> . |
| " " montanum. | " " balearica. |
| " " saxatile citrinum. | * <i>Asperula hirta</i> . |
| " " fl.-pl. | * <i>Aubrietia</i> , all varieties. |
| * <i>Androsace lanuginosa</i> . | * <i>Cheiranthus Allionii</i> . |
| " " sarmentosa. | * <i>Campanula G. F. Wilson</i> . |
| * <i>Anemone Pulsatilla</i> . | " " carpatica. |
| * <i>Anthyllis montana</i> . | " " gargarica. |
| * <i>Arabis alba fl.-pl.</i> | " " haylodgensis. |
| " " aubrietoides. | " " muralis. |

PLANTS FOR SHADY WALL GARDENS.

- | | |
|-----------------------------------|--|
| * <i>Tunica Saxifraga fl.-pl.</i> | * <i>Veronica incana</i> . |
| * <i>Veronica Bidwellii</i> . | * <i>Viola gracilis</i> . |
| " " rupestris. | * <i>Zauschneria californica</i> . |
| " " repens. | |
| * <i>Adonis vernalis</i> . | * <i>Hepaticas</i> (<i>Anemone</i>). |
| * <i>Anemone narcissiflora</i> . | <i>Mazus Pumilio</i> . |
| " " apennina. | * <i>Myosotis</i> in variety. |
| " " blanda. | * <i>Mentha Requiœni</i> . |
| " " nemorosa in | <i>Nierembergia rivularis</i> . |
| variety. | * <i>Omphalodes verna</i> . |
| * <i>Arenaria balearica</i> . | <i>Ouris coccinea</i> . |
| " " cæspitosa. | <i>Oxalis enneaphylla</i> . |
| * <i>Asarum europæum</i> . | * <i>Polygala Chamæbuxus pur-</i> |
| * <i>Cardamine trifoliata</i> . | <i>purca</i> . |
| * <i>Campanula carpatica</i> . | * <i>Primula farinosa</i> . |
| " " pusilla. | " " frondosa. |
| * <i>Cyclamens</i> in variety. | " " cashmeriana. |
| * <i>Dicentra formosa</i> . | " " latifolia. |
| * <i>Epimediums</i> . | " " rosea. |
| <i>Erodium Reichardii</i> . | * <i>Ramondia pyrenaica</i> . |
| * <i>Erinus alpinus</i> . | " " alba. |
| <i>Galax aphylla</i> . | " " serbica. |
| <i>Haberlea rhodopensis</i> . | " " Nathalie. |

So many small gardens occur upon land that is of a chalky nature that I have thought it well to draw from my own experience of such a soil, and to mark by an asterisk in the foregoing lists such plants as will succeed without any special preparation of the soil; those unmarked will prove most satisfactory in a mixture of peat, loam and leaf-soil. On many limestone soils the amount of lime in an active state is often negligible, so that even granitic plants do not resent its presence.

Coombe Court Gardens.

THOMAS SMITH.

O. lambeauiana, *O. Vuylstekeæ* and *O. rosefieldiense*.

Annual repotting is not advised, and the soil is made up of *Osmunda* fibre, peat and chopped sphagnum moss in equal parts. The fibre and peat are pulled into pieces, and all the dusty particles removed by sifting. The repotting should be done when the new shoot is about to root, and, after the operation is performed, very careful watering is necessary until the roots take possession of the new compost, when the water supply can be increased. Ordinary flower-pots are used, and these must have one-third of their depth filled

FOXGLOVES AND OTHER FLOWERS
IN THE WILD GARDEN.

THE charming illustration from a photograph taken in the garden of Bishop's Hall Manor House suggest simple ways of bringing flower beauty to unlikely spots. Here, in a cool corner, the Foxglove is charmingly grouped, a little forest of flower-lined spikes mingled with Irises and many other plants that bloom at the same time. This getting away from beaten tracks adds to one's interest in gardening; there is no sameness, but a welcome variety in effect and the kind of plants used in

MAGENTA FLOWERS.

I WAS delighted to see a correspondent confessing in your issue of November 27 to a liking and a desire for magenta flowers. In some circles it needs as much moral hardihood to say that one likes magenta as it does to confess that one dislikes cold baths. Some folk seem hardly to like to use the word "magenta," as though it were unclean, and resort instead to "rosy purple." This seems as bad as softening "cold bath" into "soapy tepid."



FOXGLOVES, IRISES AND HARDY FERNS BY A WOODLAND PATHSIDE.

with drainage material. Thrip must be kept in check by vaporising the house at intervals, or the young growth will be damaged and progress retarded.

CAMPANULA GARGANICA HIRSUTA

At the present time dry-wall gardening is much in vogue, and it is quite right that it should be, as it is a most interesting way of growing hardy plants, and so many beautiful subjects can be accommodated in a limited space. This *Campanula*, with its trailing shoots, is quite a good subject where pale blue flowers are required.

the formation of such features. The Foxglove gives to the woodland a fresh beauty during the time of flowering, and perhaps our native wilding is as charming as any form of it; but the group called *Gloxiniæflora* is a distinct improvement upon the type; the name suggests the character of the flowers—*Gloxinia*-like—and the beautiful "bells" are white, with dark spots on the inside of the segments. The wild garden should be a garden of flowers—not, of course, set out in any conventional way, but groups here and there of Starworts, perennial Sunflowers and plants as graceful, flung, as it were, from the lap of Nature.

As a matter of fact, however, real true magenta is a very rare colour among flowers. *Callirhoe pulchella* is one of the truest examples, and the glossy, silky texture of its petals seems to enhance the glowing brilliance of the colour. The most splendid examples of magenta I have ever seen were *Bougainvillea* cascading over white walls in Madeira, and great trailing slabs of some *Mesembryanthemum* on the cliffs at the entrance to the harbour of Bonifacio. But, alas! these two effects cannot be repeated in this country, except, perhaps, on the "Cornish Riviera." I envy your correspondent her magenta border. I have often

thought I should like to try a border of strong magentas with a good many violets and purples and lilacs, a few pinks of the type of *Lavatera Olbia*—that is, with just a suspicion of blue in them—and perhaps a very few white flowers.

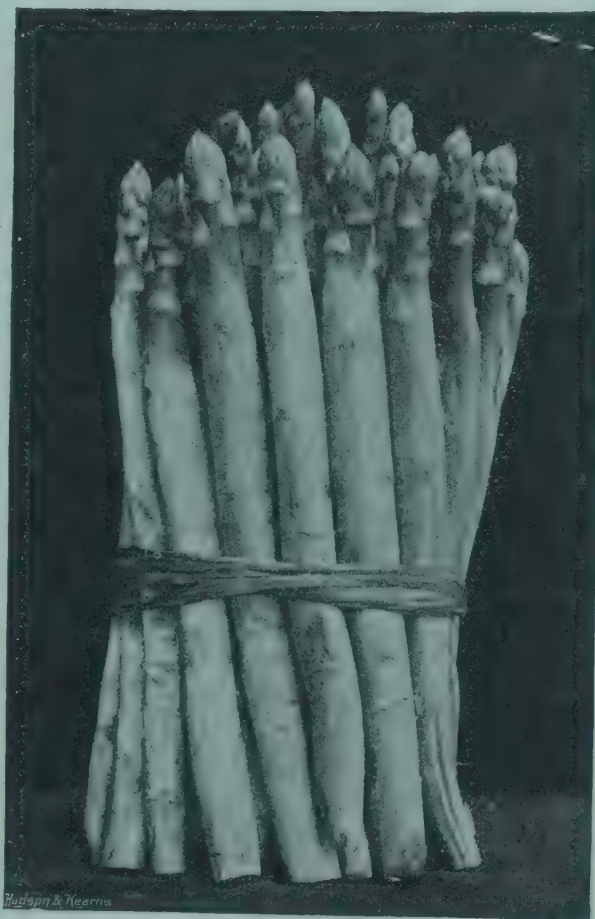
I will throw out a few suggestions, hoping that some of the plants I name may be of use to "Magenta." Comparatively few of them are the true colour, yet most or all of them are reds and pinks which would accord. Violets and purples I will not mention. For early spring at the front of the border there are two good *Aubrietias*, viz., *Fire King* and *Leichtlinii*. I believe elsewhere I have called them crimson. Well, they are the sort of crimson which will not quarrel with magenta. For late summer—also at the front—there is the cool-coloured *Epilobium Dodonæi*, only 6 inches or 9 inches high, and with plenty of character of its own. *Calamintha grandiflora*, also dwarf, is perhaps a little weak in colour, and not quite showy enough, though it might be tried. *Lythrum alatum* is dwarf and very pretty, of the right colour, but not always quite hardy. I used to grow *Dianthus Seguieri*, 9 inches to 12 inches high, and very rich in the colour wanted. Recently, from seed, I have obtained an inferior and rather mixed strain, and have given it up.

Lychnis Viscaria splendens plena is the plant I can more highly praise in this class than almost any other. It forms good tufts of dark, glossy foliage, and in June and July throws up plenty of flower-heads, solid and rich, like a double Stock, in colour strong and brilliant, 12 inches to 18 inches high. It is very easy to propagate—by division—at the proper time, viz., just after flowering. At other times I believe it is rather difficult to propagate. Another good edging plant for early summer is *Thymus Serpyllum coccineus majus*. This is a little taller in flower than the ordinary *T. S. coccineus*, and with larger flower-heads. The colour is a purer crimson than some of the flowers mentioned, but would be safe to use. A rather taller plant is *Betonica grandiflora superba*, 9 inches to 12 inches high, with very handsome heads of blossom. *Cortusa Matthioli* is the right colour, but might need cooler shade than is found in the front of the average border; and the same may be said of *Primula Veitchii* and *P. pulverulenta*, though they might be grown in rich, cool soil under these conditions.

Now for a few intermediate and tall plants. *Lathyrus latifolius*, grown on Pea-sticks, would give showy clumps of what might be called magenta pink; and if white flowers are to be admitted, the white form of this Everlasting Pea would be a useful companion to the type. *Lavatera Olbia* is pink, but a pink which I personally should admit to such a border, and near it I should grow the lavender Catmint (*Nepeta Mussinii*). The *Lavatera* must have plenty of room, for it makes a big bush 5 feet or 6 feet high and as much through. Also I should have *Lythrum virgatum* Rose Queen, with splendid summer spires of a strong magenta rose 4 feet to 5 feet high; and *L. Salicaria superbum*, a good form of the British Water Loosestrife, of a rather colder colour than the last. Some of the *Pæonies* might be included, and also the tall border Phloxes. Of the latter I would choose *Albert Vandal*, *Le Mahdi*,

Reichgraaf von Hochberg and *Rosenberg* among the stronger colours; and *Eugène Danzanvilliers*, a charming "print dress" lilac and white. I do not know what sort of a crimson *Phlox pilosa* is called in catalogues, but it is a colour I would put in the present border; height about a foot, and habit like that of *P. divaricata*. I think I would plant a patch of the two, mixed—lilac and cold rose. Another *Phlox* which might be included (for the very front of the border) is *P. subulata compacta*. It forms a solid mat of rich deep rose pink, and it has just that tone which would make it right among the magenta clan.

Of course, there are several *Pentstemons* and *Carnations* of a magenta tone; but here, I fear, I cannot advise as to exact varieties. The same applies to the hybrid *Gladioli*. There are some



A HOME-GROWN BUNDLE OF GIANT ASPARAGUS.

very strong, rich colours among them of magenta persuasion, and probably described in catalogues as crimson purple or rosy purple. But there is a splendid species of *Gladiolus*, viz., *G. byzantinus*, of a fine ruby red—pigeon's blood ruby—which should certainly go into the magenta border. It grows about 3 feet high, flowers about midsummer, and with me is quite hardy. The well-known *Bergamot* would be too hot a red, but *Monarda violacea superba* should certainly be included; height about 2 feet to 3 feet. *Verbena venosa*, height 12 inches to 18 inches, very free-flowering, not quite hardy, is superb. How shall I describe the colour? Reddish violet? It is better not to try to be too accurate, but it is a grand plant for our purpose. Personally, I should grow it near or mixed with some such plant as the dark *Heliotrope*. A rich reddish magenta when in flower is the improved *Honesty* (*Lunaria biennis*

atrococcinea). It is, of course, biennial. The truest magenta flower of which I can think is *Callirhoe pulchella*, an annual. Another annual to grow at the front of the border would be *Mesembryanthemum tricolor*, with starry Daisy flowers, the rays a good tone of rose, with a white zone at the centre. And by "rose" of course I mean a tone of rose which will go with magentas and violets, as opposed to salmons and yellow pinks.

My last suggestion may come as a surprise to many—*Cineraria stellata*. Sow the seeds under glass about January or February, grow on in pots, and plant out in the border in rich loam about May, giving plenty of room, and water well in dry weather. The plants will flower through the middle and late summer, and astonish all beholders. A good mixed strain will do, for no *Cineraria* that I can think of would give discord

in the "magenta" border (except the terracotta *C. Matador*, which is not a stellata variety). I grew *Cineraria stellata* in a herbaceous border seven or eight years ago, and the plants remained magnificent even after the autumn frosts had made the Michaelmas Daisies look shabby.

Stevenage.

CLARENCE ELLIOTT.

GIANT ASPARAGUS.

THE immense sticks of *Asparagus* that one sees in the London shops are usually imported at high prices from Paris. They may be as easily grown in this country as they are around Paris,

provided the plants are grown in suitable soil and manured liberally when bearing. Many people prefer these large sticks, and they are known in Paris as *l'Asperge d'Argenteuil*. Many sticks attain a circumference of 4½ inches to 5 inches, and weigh from 10oz. to 12oz. each. These fine sticks are grown chiefly at Argenteuil and in the environs of Paris, but are also grown in numerous private gardens in other parts of France.

The market growers around Paris plough their ground about 12 inches to 14 inches deep in autumn, after having given a dressing of well-decayed manure of about 12 yards (square) per acre. (The manure is usually sold by the mètre cubic in France.) This is left in as rough a state as possible during winter to benefit from the frost.

In wine-growing districts *Asparagus* and Vines are frequently grown in alternate rows. When this is so, the *Asparagus* is planted about a yard and a quarter apart. In places where it is grown by itself, the single plants are put about a yard apart both ways. They are grown like this in private gardens as well.

The best results are obtained from a moist, sandy loam; but where the soil is heavy, very good results are obtained when a quantity of gritty or sandy soil is dug in and mixed well with the soil. Before planting, all large stones are collected and removed from the beds. Great care is exercised to procure plants from a reliable stock, as much depends on this. On the vexed question as to whether one, two, or three year old plants are best, it is difficult to express an opinion. Many first-class growers make their beds from one year old plants only, and I have seen some

splendid results from these beds. From older plants, of course, cutting commences earlier. In the case of one year old plants, cutting commences four years after planting, the fifth year giving a full crop. In the warmer districts planting takes place in March, but in cold places the end of April is early enough.

When planting is commenced, a trench is taken out about 4 inches deep and 18 inches wide. The soil is put on either side and the bottom of the trench made firm, as Asparagus prefers a solid base. The roots are spread out and covered with fine good soil, pressed well around. Then a stick is put in a few inches away to protect the young growths and to mark the place. Enough soil is then pulled down from the sides to cover the plants to a depth of 4 inches. The following year some more soil is added in the same manner in spring, with a mulching of well-rotted manure. This is continued for two years more, when the trenches are filled with the surrounding soil and the bed is level. In the winter the soil is pulled back from the clumps, and about 9 inches of fine soil placed over the plants each spring. For the first few years, crops may be planted between, and weeds are kept down by hoeing. In dry weather heavy soakings of water are given, where possible. W. L. L.

THE ROYAL LILY (LILIUM REGALE).

By SIR HERBERT MAXWELL,

OF all the floral treasures which diligent collectors have discovered in Western China during the last twenty years or so, none excels, very few equal, this in beauty. It is well named *Lilium regale*, the Royal Lily, for it is a truly splendid flower. When it was first introduced to this country at the close of last century, it was named *L. myriophyllum*, in allusion to the densely crowded linear leaves that clothe its 3-foot stem, but it was soon recognised as quite distinct from Franchet's Lily of that name. Its affinities are with *L. Brownii* and the newly discovered *L. Sargentæ*; but *L. Brownii*, though peerless in beauty, is one of the most difficult of its race to keep in cultivation; whereas the Royal Lily, grown in well-drained soil with a plentiful admixture of ground lime, displays the constitution of a common Martagon. It flowers three weeks or so earlier than *L. Sargentæ*, and although of inferior stature (Mrs. Sargent's Lily exceeded 5 feet in height with, me this year) is of more graceful habit and more delicate colouring. The ground of the blossom is alabaster, flushed with rose outside and with clear yellow inside; the anthers are golden, as distinct from the orange brown of *L. Sargentæ*.

The Royal Lily has proved perfectly hardy, so far, in the open without protection at Monreith, except that a few of the young growths were cut by a sharp frost in May of the present year, which injured many other choice things.

THICK V. THIN TRAINING OF FRUIT TREES.

HOW the training of fruit trees, both under glass and in the open, in gardens and orchards varies! Evidently there is much diversity of opinion among fruit growers as to the best method to adopt.

Gardeners, as a body, are prone to allow their trees to produce and retain too much wood. It seems strange that Apple trees, Peach trees, or even Vines are often allowed to retain so many branches, and yet produce but a moderate quantity of fruit. Yet such cases are common, and no amount of reasoning seems to have any effect. How often do we see Peaches under glass almost a thicket of growth, when half the number of shoots would produce better results.

or Pear tree, Red Currant or a Gooseberry tree. If ten main branches are sufficient to produce a full crop of fruit, why have twenty? Too many persons fail to see why espalier-trained Apple trees give more regular crops than bushes or standards. A moment's reflection should prove that there is not the overcrowding in an espalier-trained tree there is in a bush. Bush Apple trees are probably more neglected in a systematic pruning than any other kind of tree, if I omit open wall Peaches or Morello Cherries.

Young bush Apple trees often make vigorous growth and at times give a little fruit; and instead of their being corrected at the root and the thinning of the current shoots in summer, they are allowed to retain all their growth until the autumn, when the trees are again hard pruned, especially their leaders, the result the following year being more vigorous growth still and less promise of fruit. If those who manage their trees on what I



A MAGNIFICENT DISPLAY OF THE ROYAL LILY (LILIUM REGALE) AT WARLEY PLACE.

It is the same with Peach trees on open walls. Too often trees are found where the leaves of one branch overlap doubly those of the next shoot, and if the latter is examined in the autumn it will be found that the bark is quite green instead of being red. If three properly matured current season's shoots will produce all the fruit necessary next year to give a full crop of fruit all over the tree, why should a dozen shoots be retained in the same space?

It is the same with Vines under glass. If a single rod can carry twelve bunches, why should that rod be allowed to have double that number of spurs? Again, it is not uncommon to see spurs furnished with two or more shoots. This is absolutely unnecessary, except, perhaps, in the case where there is a gap on the opposite side of the rod and two on this particular spur are retained for the purpose of filling that space. Take, again, a bush or a standard grown Apple

have tried to show as a wrong principle would meditate for a moment as to the function the leaves perform for the welfare of the tree, I think they must see at a glance it is impossible for the leaves to mature under such circumstances as an almost entire absence of light. If the leaves do not mature, how can they perform their function of supply to the wood in the forming of fruit-buds? I venture to say that nineteen out of every twenty successful Grape growers act on the principles I have noted, namely, allow abundant space between the rods, spurs and growth shoots.

Too many gardeners were trained under a wrong formula in fruit growing; that is why they cannot realise the advantage of opposite methods.

How, then, can we expect amateur cultivators to grasp all the correct principles with their restricted opportunities? E. MOLYNEUX.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Early Peaches.—Trees which were started early in November may be subjected to a slightly higher temperature, but it must be borne in mind that the Peach is very impatient of artificial heat, especially during the early stages of growth. Forcing should be done chiefly by making the best use of sun-heat. Admit air during the forenoon during bright weather, but close the house while the sun is full on it. Spray the trees with lukewarm rain-water on fine mornings, and damp all bare surfaces in the house as often as necessary. Commence disbudding the trees when the buds are about an inch long, removing about one-third of the buds at the first operation. This important work should be spread over several weeks, so that the trees may not receive a check. Before the trees come into flower, fumigate the house with a nicotine compound. During the flowering stage the temperature should not fall below 55°, and the atmosphere must be kept dry. Pollinate the flowers before noon, paying special attention to those on the upper side of the trees.

Young Vines.—Vines which were planted last season may now be pruned. If they have made satisfactory growth, the main rods may be cut back to 2 feet or 3 feet; but if the growth is weak, they should be cut back to two or three buds. Vines intended for planting in the spring must be cut back before the end of the year. When dry, the cut surfaces should be painted with styptic to prevent bleeding. Plunge them in ashes outdoors till a week or two before they are required for planting.

Plants Under Glass.

Chrysanthemums.—The main batch will now have passed out of flower, and attention must now be given to the propagation of a new stock of plants. Worthless varieties will have been noted, and these should be discarded. When suitable cuttings are available, they may be inserted in pots or boxes and placed in a propagating-case. Any varieties which are shy in producing cuttings may be placed in one of the fruit-houses which have just been started.

Lachenalias.—These will now be making good progress, and must be placed on a shelf in the greenhouse. At no time must they be hurried by placing them in too much heat. As the pots become filled with roots, some form of stimulant will be necessary.

Coleus thyrsoides.—This beautiful plant is now developing its flowers, and with careful attention to watering and feeding, it will continue to flower throughout the winter. It is essentially a stove flowering plant, but it will continue to flower quite satisfactorily in the greenhouse or conservatory provided the temperature does not fall below 50°.

The Flower Garden.

Fuchsias.—Young plants which were struck in the autumn should now be potted up into 3½-inch pots and grown on in a moderately warm atmosphere. If standards are desired, some of the most promising plants should be selected and grown on in the same way as Heliotropes. The dwarf plants will require to be stopped at suitable intervals.

Wall Plants.—Many climbing subjects may be planted now, provided the weather is open. It is necessary to thoroughly prepare the ground by deep cultivation and manuring. Nearly all climbing plants may be purchased in pots. The following are a few subjects suitable for growing on walls: *Ceanothus*, *Passiflora cærulea*, *Polygonum baldschuanicum*, *P. multiflorum*, *Escallonia*, *Cratægus*, *Cydonia*, *Cotoneaster*, *Jasminum nudiflorum*, *Chimonanthus fragrans* (the last two are now in full flower), *Ivies* in variety and ornamental Vines.

Protecting Bulbs.—It will be wise to keep a careful watch on bulbs which have been recently planted. Rats and mice will do very serious damage to various kinds of bulbs when other food is scarce. Mice are easily caught in traps, but rats are not so easy to deal with. Where poison can be used with safety, this is the

best means to destroy these latter pests. Pheasants are known to be fond of Tulip bulbs.

The Hardy Fruit Garden.

Raspberries.—These may be planted as soon as they can be procured from the nursery. The ground should be trenched and manured, and should it be of a heavy, retentive nature, a quantity of burnt garden refuse or wood-ashes will be beneficial. Should the ground be very wet at the time of planting, a little dry soil from the potting-shed will facilitate the work. Plant firmly, and when finished cover the roots with a coating of short litter. The variety *Superlative* is one of the most reliable. Autumn-fruiting Raspberries have done remarkably well this year. These need replanting every season to grow them to perfection.

The Kitchen Garden.

Early Potatoes.—Hot-beds must now be made up on which to place rough frames for the forcing of early vegetables. The tubers need not be planted till the New Year, but if the soil is placed in the frames and covered with glass, it will be in good workable condition when planting-time arrives. Good crops of Potatoes may be grown in pots or boxes. They may be placed in a fruit-house which has just been closed.

Celery.—It will be necessary to place protecting materials over the plants during times of severe frost. A little dry Bracken will answer the purpose well, but it must be removed as soon as mild weather appears. The Celery disease has been unusually prevalent in this district.

Herbs.—Supplies of herbs may easily be kept up by placing a few roots into heat at regular intervals. Sorrel should be lifted and potted into large pots; roots of Tarragon and Mint may be planted in boxes, as also may Chives. Another sowing of Basil may be made as soon as the old plants show signs of exhaustion.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

The Flower Garden.

Herbaceous Border.—This border should be cleared of most of its occupants about every fourth year and trenched, putting in a liberal quantity of farmyard manure. Some subjects, such as *Pæonies* and *Lupines*, resent frequent disturbance, and should not be interfered with. The roots of all plants must be protected while the trenching is being done, and, when possible, only portions should be done at a time, in the event of frost or snow interfering with the work. If every advantage is taken during open weather, this work will be completed before early spring, leaving more time for other work during that busy season.

Bedding Stock.—Plants of the more tender subjects, such as *Ageratums*, which are being kept to produce cuttings later on, should be kept near the glass to prevent them becoming weak and drawn. Although very little water is required for most of the plants during the short days, they must not be allowed to suffer from the want of it. *Geraniums* are subjects which are very easily injured by too free a use of the watering-can.

Violas and other subjects of a more hardy character being wintered in frames must receive proper attention regarding ventilation and protection during severe frost. Where the soil in which they are growing has become green on the surface or stagnant, it should be freshened up with a small fork. Decaying leaves or cuttings which have damped must be at once removed.

The Kitchen Garden.

Potatoes.—Those being kept for seed purposes should be looked over at intervals to remove any doubtful or diseased tubers. During spells of severe frost it will be well to see that the Potatoes are sufficiently protected. The same remark applies to other Potatoes which may be stored in outdoor pits; these are certain to need an additional

covering of straw or similar protecting material while severe weather continues.

Brussels Sprouts.—During very wet winters Brussels Sprouts are sometimes injured through the decay of the foliage. The plants should be looked over, and any decaying leaf-stalks removed. The tops of the plants must not be taken for use until all the Sprouts have been gathered.

Cauliflower.—Young plants wintering in frames must not be allowed to damp off through want of proper or sufficient ventilation. Even during frosty periods advantage should be taken near the middle of the day to open the lights, if only for a short time. As slugs are troublesome, soot or some gritty material must be sprinkled around the plants to prevent these pests from doing harm.

Fruit Under Glass.

Early Figs.—To get the earliest Figs next season, some pot Figs should be started now. A mild hot-bed of stable litter and leaves should be made up in the house or pit where they are to be grown, plunging the pots to the rims in this after making sure that the heat in the bed has commenced to decline. Use the syringe on bright days, and when water is required at the roots use it in a tepid state; but if the roots are in a proper condition when the plants are brought indoors, water should not be required for some time. Should the plants require top-dressing, and perhaps the pots may already be well filled, additional soil may be added after placing zinc bands around the rims of the pots.

Fruit-Houses at Rest.—With the exception of the early vinery and Peach-house, all should be resting. This period is equally important as the growing season. Abundance of air and all possible light are needed, so that no tree should be overshadowed in any way by plants or other subjects. Heat must only be allowed to circulate in the pipes when there is any danger of them being split by frost.

The Hardy Fruit Garden.

Training and Pruning Wall Trees.—Periods of mild weather should be chosen for this work, as it is only under reasonably comfortable conditions that the operator can perform this work satisfactorily. All previous ties should be examined and renewed where necessary. No more young wood than is absolutely necessary ought to be trained, as overcrowding is a common cause of many failures. Newly planted trees should not be tied or nailed into position until the soil has settled, which will not take place for some little time after planting.

Plants Under Glass.

Calanthes.—Most of the deciduous varieties are in full flower, and must be kept in a fairly dry atmosphere, yet not too warm. A minimum temperature of 60° should be the rule. As they pass out of bloom the flowering stems must be cut over; then the bulbs placed on a dry shelf in the stove or intermediate house, where they will get complete rest for a time. Care must be taken to keep them dry. Where space is a consideration, the bulbs can be shaken out from the pots and placed closely together in boxes, covering the roots with sand.

Violets.—Growth is very slow at present, and the production of bloom is consequently retarded. As many blooms damp off before opening, the plants should be gone over occasionally and the flower-buds lifted up carefully to the top of the leaves, where they will open quicker with the benefit derived from the light and exposure. Where the soil has become green, the surface should be stirred up with the point of a stick or small hand-fork. Abundance of air must be given on all favourable opportunities, but covering up will be needed during frost.

House Washing.—It is very important that all light possible should find its way to the plants unobstructed. Near large towns it is necessary to wash the glass outdoors several times during the course of a season. In the interests of cleanliness for the health of the plants, all glass and woodwork indoors should be scrubbed down with warm soapy water.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

"HUMOGEN," OR BACTERISED PEAT.

A REVIEW BY F. J. CHITTENDEN, F.L.S.

The Spirit of the Soil.*—One of the most remarkable results of scientific investigation into the soil has been the vindication it provides of the cultural processes adopted by generations of the best cultivators, ignorant though they were of scientific facts. In no direction is this more apparent than in the aid cultivation gives to the helpful nitrogen-fixing and nitrate-making bacteria. But ever since the discovery of these organisms the problem of getting even more out of them than the best cultivation succeeds in doing has attracted many minds. The book under review is an account of the latest effort to turn them to profitable use, and gives "an account" (as the subtitle states) "of the nitrogen fixation in the soil by bacteria and of the production of auximones as promoted by bacterised peat."

I should like to take the book chapter by chapter and discuss each, but that is impossible within the limits of a review, and I must content myself with making a general comment upon its subject; but before doing so I should like to say how much I have enjoyed the perusal of the book, for I have rarely read a more lucid and interesting presentation of a somewhat difficult and often technical subject, and never, since Tilden's "Chemical Philosophy" intrigued my imagination, have I come across so clear an exposition of elementary chemical conceptions as the author gives in Chapter IX. This chapter does not seem necessary to the argument, but is rather an interpolation unconnected with those preceding and following it; it is, nevertheless, a delight to read.

The main object of the book is to give an account of bacterised peat or Humogen, and of the remarkable effects it is destined to produce. Humogen is the result of a search by Professor Bottomley, who is its patentee, for a medium in which to cultivate nitrogen-fixing organisms. He has, he believes, found it in peat. Now "peat" means many things to different minds, and it is, in this case, a very different material from that usually called peat by gardeners. It is, indeed, nothing more nor less than the peat-moss litter which is used so much in towns for bedding horses. In its fresh condition it is not suitable for the development of the bacteria, but Professor Bottomley moistens it and inoculates it with humifying bacteria (the nature of which he has not divulged), which are allowed to grow in it for some days at a suitable temperature. The result of their growth is a great increase in the amount of the soluble humates in the material, and it is these soluble humates which Professor Bottomley believes serve to encourage the growth of the nitrogen-fixing bacteria. The humifying bacteria are killed off by steam, and a mixture of the nitrogen-fixing germs, *Pseudomonas radicola*

(the germ which produces nodules in Peas and Beans) and *Azotobacter chroococcum* (the chief nitrogen-fixer living free and fixing nitrogen in soils), is added. After keeping for a few days at a suitable temperature, Professor Bottomley finds that the nitrogen content of the mass has greatly increased, and, after drying, the material is fit to be used as a fertiliser. It is to be added to the soil, where it is said to enhance the nitrogen-fixing capacity, and to increase the growth and yield of crops of all kinds. This increased yield is (according to Professor Bottomley) not entirely or even perhaps mainly due to the available nitrogen added, but to certain bodies produced by the activity of the bacteria, called auximones. Auximones

Bottomley tells us he takes full responsibility for the results Mr. Knox has described. The book may therefore be taken as authoritative. The author is firmly convinced, it is evident, of the value of the material, and, indeed, he is hardy enough to state his conviction that Nitro-Bacterine (which he also devotes much space to and which many will remember proved a failure in general application in this country) is worthy of use, since it gave *some* good results, ignoring the very general distribution of the *Pseudomonas radicola* which it is intended to add to the soil—a distribution almost universal in the soils of our country. He gives many instances of good results obtained by the use of Humogen, and though these will not for the most part satisfy scientific scrutiny as evidence, and some of them are totally inadmissible—as, for example, where four Potato tubers (weight not stated) yielded 2lb. 10½oz. of Potatoes when grown in sterilised moss watered with Humogen extract—yet they are sufficient to show



A SURPRISE IN CONNECTION WITH HUMOGEN IS THAT IT INTENSIFIES VARIEGATION AS WELL AS DEVELOPMENT.

The Coleus plant on the right received humogen, while the one on the left had the usual potting compost.

are said to take the place in plants which vitamins occupy with regard to animals. Feed an animal with all the materials in ample quantities which chemical analysis tells us are necessary, and the animal fails to thrive, unless provided also with minute quantities of certain elusive substances to which the name "vitamines" has been given. It is a fascinating idea, and quite possibly a true one, that similar substances are necessary for plants, and Professor Bottomley believes that he has discovered them. At any rate, the most active material in promoting growth appears to exist in very small quantities in the Humogen, as shown by the water-cultures described. Whatever it may be in the Humogen—nitrogen, auximones, or something else—in many cases very marked results have followed its use.

The author has been, he tells us, deeply interested in the experiments Professor Bottomley has had in hand for the past eight years. He has taken no part in carrying out the experiments, but Professor

that the material is worth very careful trial as a fertiliser. He admits that some experiments have shown no good results, but alludes to only one, of which he gives a partial account. This method of presenting a case for Humogen detracts from the value of an otherwise admirable book.

I have seen remarkable examples of increase in growth due to Humogen, and I have seen other cases where the difference in crops on treated and untreated ground has been practically negligible. Before the material can be confidently recommended to take the place of farmyard manure, such differences must be explained. Does the explanation lie in the sentence quoted below (from page 154), and are the different samples sent out of different values? "Experience shows that different samples of peat show large differences in the quantity of soluble humus that they yield." Or may there not be "accidents" during its manufacture which result in considerable differences in the final product? The raw material

* "The Spirit of the Soil," by Gordon D. Knox, with a Foreword by Professor W. B. Bottomley. 8vo, xiii. + 242 pp. London: Constable and Co., Limited, 1915; price 2s. 6d. net.

is a complex one, its manufacture is complex, and it is to be added to a very complex mixture, the soil. Until the results it gives can be depended upon as surely as those following the use of, say, farmyard manure, it is not likely to be acceptable to the general public.

Humogen, or bacterised peat, has given sufficient good results to justify extended experiment, and I hope that all who can will experiment with it, remembering, however, that peculiar difficulties surround garden experiments, and that one increased yield following its use does not justify a high estimate of the value of Humogen, nor does one failure justify its condemnation. Conditions which have not been taken into account may explain the one or the other.

Professor Bottomley has made a discovery of considerable scientific interest, and I believe of great potential value. I understand he has offered to hand over the discovery to the nation, and to forgo all his patent rights in favour of the nation for the period of the war. Exactly how this generous and public-spirited offer is to be given effect to is not yet settled; but when details are forthcoming and the material available for distribution, I hope it will be widely experimented with by gardeners, for we are badly in need of a substitute for farmyard manure.

ANSWERS TO CORRESPONDENTS.

THE GREENHOUSE.

INFORMATION ABOUT ASPIDISTRA (E. W.).—The full name of the plant grown as *Aspidistra* is *Aspidistra lurida*, a native of China, whence it was introduced in 1822. In a state of nature it grows on the partially shaded outskirts of forests. This gives a clue to its successful cultivation, for it should not be grown where fully exposed to the sun. The variegated-leaved form originated as a sport from the ordinary green kind, but the date thereof we are unable to give. There is also a scarce variety (punctata) in which the variegation consists of small dots over the entire leaf. We presume you have seen the curious flowers of the *Aspidistra*, which first make their appearance as small knobs on the surface of the soil. When expanded they are starry in shape and of a dull purplish brown colour; hence the name of *lurida*. Though to an ordinary observer there appears no likeness between this plant and the beautiful pure white *Madonna Lily*, they are botanically nearly related, both being members of the Order *Liliaceae*.

INJURY TO FERN (B. B.).—The Maidenhair Fern is very badly attacked by scale; the worst attack, indeed, we have ever seen. You might try cutting down all the fronds completely and dipping at intervals in a mixture made by kneading some flowers of sulphur into a handful of soft soap and dissolving it in $1\frac{1}{2}$ gallons of hot water. After the mixture has cooled, dip the plant; but it is probable it is too badly attacked to recover.

ROSE GARDEN.

LIQUID ARTIFICIAL MANURE FOR ROSES DURING THE WINTER MONTHS (Maida Vale).—Even if your trees are well established, it is a mistake to feed them with artificial manure such as you suggest during the winter months, when the plants are more or less dormant. The majority of growers wait until growth is active before attempting to feed Rose plants. The National Rose Society's Annual for 1915 has a symposium by half a dozen well-known experts that would prove interesting reading to you. It can be obtained from the Secretary of the National Rose Society for 2s. 6d., and is the best work on the subject.

LATERAL GROWTHS ON ROSES (R. L. S.).—This term is used when the small side shoots that spring from the main branches are referred to. They vary in length and stoutness. Those of small, thin, short growth upon rambler and climbing Roses are usually cut back to one or two eyes; whereas the stronger ones are retained from 4 inches to 12 inches, and even more in length.

WICHURIANA ROSES FOR BANK (A. W. Martin).—Dorothy Perkins would be about the best variety you could plant. Lady Gay is perhaps better in foliage, and the new Chatillon Rambler would flower earlier. Ethel, too, is very fine, but rather addicted to mildew. American Pillar is grand, both in foliage and bloom; but you could not mix it with any other very well. For real beauty of foliage you could not surpass this variety. Shower of Gold is very beautiful as regards foliage, but you would not obtain such a fine effect in bloom as from Dorothy Perkins or American Pillar.

FRUIT GARDEN.

TIME OF RIPENING OF APPLES AND PEARS (E. M. H.).—With regard to the time of ripening of Apples and Pears, there is not, and cannot be, a hard and fast rule, seasons, soils, aspects, positions and localities playing their part in hastening or retarding this process, last year specially demonstrating this fact. In the case of Pears this was specially noticeable, many varieties being weeks, and some even months, out of their scheduled time of ripening. As regards the quality and flavour of both Apples and Pears, the conditions above mentioned are responsible for extraordinary variations in this respect. The question of culture also, whether good or bad, as well as the age of the trees, are important factors in determining this matter.

APPLE BISMARCK (Enquirer).—No doubt you have the true Bismarck. Your description is good and correct. Usually the fruit is in season from October to Christmas.

BLACK ROT IN APPLES (Colonel H. M.).—The Apples appear to have been attacked by the fungus which causes black rot, *Sphaeropsis melorum*. This is not a common disease in this country, though we have seen it on previous occasions. The same fungus causes leaf-spot of Apples, and at times canker of the branches. We recommend you to spray the trees in the way we have several times recently recommended for scab, and to prune out all cankered growths if there are any in the tree, protecting the wounds so made by painting them with lead paint or with Lysol.

KITCHEN GARDEN.

SEED POTATOES TO STORE (Potato).—Keep your seed Potatoes in a cool, airy, fairly light position. An outbuilding or an empty room, for instance, would do, provided it is cool enough and at the same time frost proof. Place the tubers in single layers on dry boards, or in shallow boxes. You must guard against their being excited into growth before natural growth takes place in spring, and then let growth come on as slowly as possible so that the sprouting growth shall be short and sturdy; at the same time give each tuber more room. Evidently the place yours are in is too warm, by their sprouting now. Remove these sprouts and place the tubers in a cooler place. Seed Potatoes will rot, whether cut or not cut, before a crop of new ones are formed. When planting-time comes round, take special care in handling the tubers not to injure the sprouts; it is from these that the crops will proceed.

FAILURE IN CARROT GROWING (S. P. W.).—Our correspondent says that the whole of his Carrots were spoiled by a white worm when they were about the size of a lead pencil; this in spite of the land having received a good dressing of quicklime the winter before. All the gardens in our correspondent's neighbourhood are similarly affected, so that the trouble is a serious one in that part. The most effective remedy would be to burn the top crust of the soil to a depth, say, of 6 inches; it is not so difficult or expensive a matter as many people think. Make a good body of fire, with a bit of coal to start with, afterwards adding any available wood and garden refuse that will burn; then cover the fire over with a crust of soil 7 inches or 8 inches deep, let it remain on the fire until it gets so hot that you are satisfied nothing can live in it, then take it off. Stir up and add fuel to the fire, and cover over again with soil until the soil of the plot on which you propose growing Carrots has all been done. It would be better to do this shortly before the Carrots were sown than now. Another way is to dig the ground now, scatter soot and lime freely over the soil as each furrow is turned over, and add a very small scattering of common salt (a handful only over a turned furrow 3 yards long).

MISCELLANEOUS.

BRUSSELS SPROUTS RIDDLED WITH CATERPILLARS (A. L.).—There is no good method safe to be used for clearing caterpillars off Brussels Sprouts except hand-picking. You might try spraying with water at 115° Fahr., or spraying with a $2\frac{1}{2}$ per cent. salt solution. Each of these presents some hope of success, but neither is certain.

NAME OF PLANT.—*Boris*.—*Pyraecantha coccinea*.

SOCIETIES.

GLASGOW AND WEST OF SCOTLAND HORTICULTURAL SOCIETY.

UNDER the auspices of this society a lecture on "Alpine Flowers," with lantern illustrations, was given in the Religious Institute Rooms, Buchanan Street, Glasgow, on the evening of December 1. Mr. D. G. Purdie, chairman of directors, presided over a large attendance. The lecturer of the evening was Provost S. Arnott, Sunnyside, Maxwelltown, who discussed the subject in a practical manner, dealing first with the question of "What is an Alpine?" and pointing out that horticulturally the term included dwarf plants suitable for rock gardens, and was not confined to those which were, strictly speaking, true alpine flowers. He dealt with the position, material and construction of rock, wall and moraine gardens suitable for the cultivation of alpine flowers, passing on to give a rapid review of a number of the most suitable genera of alpine flowers. The lecture was illustrated by a number

of lantern slides, showing a considerable variety of suitable subjects, the selection of slides being specially strong in Campanulas. The lecture was well received, and on the call of the chairman, Provost Arnott was accorded a hearty vote of thanks, the hope being expressed by the chairman that the lecturer would come another year. A good specimen of *Begonia Gloire de Lorraine* was exhibited by Mr. H. Reid, Ruchill Hospital Gardens. The chairman intimated that this lecture brought to a close the short series arranged by the society, and expressed his gratification at their success under the adverse circumstances caused by the war.

DUMFRIES AND DISTRICT HORTICULTURAL SOCIETY.

THE annual meeting of this society was held in the Wesley Hall, Dumfries, on the evening of November 27. In the absence, through illness, of the president, Provost S. Arnott, Mr. A. W. M'Alister occupied the chair. Provost Arnott sent a letter expressing a desire to be relieved of the duties of president on account of the pressure of his municipal work; but it was resolved to appoint a deputation to ask him to accept office again. The financial statement was submitted by Mr. J. L. Armstrong, secretary and treasurer, and was of a satisfactory nature, showing a balance at the credit of reserve of upwards of £50, with one on ordinary account of upwards of £5 after paying over £55 to war relief funds. Subject to Provost Arnott reconsidering his decision, he was reappointed president, and the following other office-bearers and members of committee were appointed: Vice-presidents—Mr. W. Hutchinson (Terregles Gardens), Mr. J. Maxwell-Gray and Mr. A. W. M'Alister; committee—Mr. J. Learmont, Mr. J. Croall, Mr. J. Cormack, Mr. T. Hunter, Mr. W. Brown, Mr. J. B. Crichton, Mr. O. Robertson and Mr. W. Edgar; secretary and treasurer—Mr. J. L. Armstrong.

OBITUARY.

W. ATLEE BURPEE.

By the death of Mr. W. A. Burpee, which occurred recently in Philadelphia, we mourn the loss of an American horticulturist who was particularly well known in this country. He was a Britisher by birth, for he was born in Canada, and was very proud of this fact. It was in connection with the Sweet Pea and the National Sweet Pea Society that he was best known in this country, and he was a familiar figure at the shows, trials and festive gatherings of this society. His eloquence will long be remembered, for he was a bright and interesting after-dinner speaker. Moreover, he had the power of making true and valuable friendships, and to those who had the privilege of calling him friend their loss will be very great, for he was a man of immense intellect whose chief attributes were love, sympathy and charity.

SAMUEL BIDE.

It is with deep regret that we have to record the death of Mr. S. Bide, the head of the esteemed firm of Messrs. S. Bide and Sons, Limited, Alma Nurseries, Farnham, who passed away on November 25. Mr. Bide was much respected in the horticultural trade, and he was looked upon as an authority on Roses, forest trees and vegetable crops, such as Seakale and Asparagus, which are extensively grown at Farnham. For some time Mr. Bide had been ailing, and his end was doubtless hastened by the death of his wife, which occurred only a few weeks ago. His funeral took place at Hale Parish Church on the 29th ult., amid every token of respect from a wide circle of relatives, friends and employes.

National Rose Society.—The annual meeting, which is of so much interest to rosarians, will be held in the Connaught Rooms, Great Queen Street, Kingsway, W.C., on Tuesday, December 14, at 2.30 p.m.

* * The Yearly Subscription to THE GARDEN is: Inland 6s. 6d.; Foreign, 8s. 9d.

THE GARDEN.

No. 2300.—VOL. LXXIX.

DECEMBER 18, 1915.

NOTES OF THE WEEK.

Marriage of Corporal Herbert Cowley.—On December 8 the marriage took place between Mr. Herbert Cowley, Editor of *THE GARDEN*, and Miss Elsie M. Hurst, the only daughter of Mr. Samuel J. Hurst of Kingston. The wedding was solemnized in the Parish Church, Kingston-on-Thames, the Rev. Joseph Jacob very kindly officiating, and the occasion was favoured by an exceptionally bright day. Mr. Cowley joined the 12th London Regiment (The Rangers) on the outbreak of war, and has twice been wounded at Ypres. A shrapnel wound on the knee-cap has left him unfit for active service. Our readers will join us in wishing Mr. and Mrs. Cowley a long and happy future.

The Prickly Heath (*Pernettya mucronata*).—This is unquestionably one of the most beautiful of all berried shrubs for autumn and winter effect. The berries are usually of a bright rosy purple, but there are varieties with crimson, white, pink, purple black and intermediate colours. The twiggy sprays of this low-growing shrub are useful for decoration in the house, while the plants look very cheerful in the garden at this season. This Heath is perfectly hardy, belonging to the Natural Order Ericaceæ.

Kew Gardens Protest.—In opposition to the declared intention of the Board of Agriculture and Fisheries to make charges for admission to Kew Gardens, Councillor Filby moved a resolution of protest at a meeting of the Richmond Town Council on December 14. In view of the great educational value of Kew, the tax on visitors is greatly to be deplored. Rumour has it that the public will be admitted at a charge of 2d. before noon and 1d. after noon, while certain days are reserved for students, artists and photographers, who will pay an admission fee of 6d.

Show of Hardy British-Grown Flower Bulbs.—For the encouragement of home industries the Council of the Royal Horticultural Society have consented to the holding of an exhibition at Vincent Square of hardy home-grown flower bulbs on August 1, 1916, in order to demonstrate the excellence to which such bulbs can be grown in Great Britain and Ireland. For the purposes of this exhibition corms and tubers, such as Crocuses, Anemones and such like, may be considered as bulbs. The schedule includes classes for amateurs and the trade. It is now ready, and may be had on application to the Secretary,

Royal Horticultural Society, Vincent Square, Westminster, S.W.

National Rose Society.—Owing to the serious illness of Mr. Cook, the treasurer of this society, the annual general meeting, which should have been held on the 14th inst., was unavoidably postponed.

Death of the Hon. John Boscawen.—Just as we are closing our pages for press we learn with

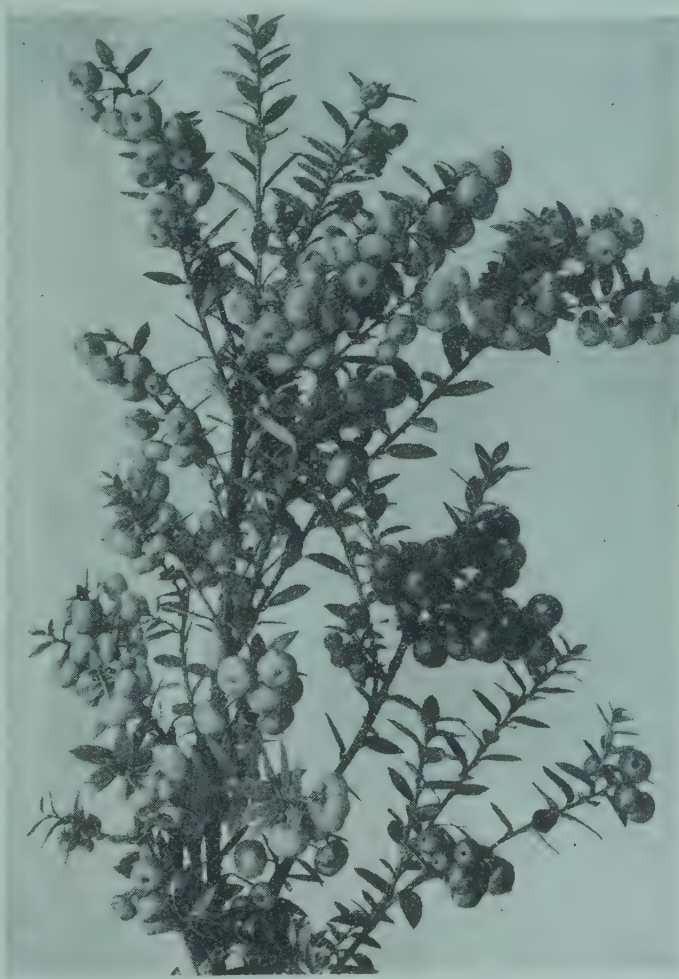
The Fruiting of *Xanthoceras sorbifolia*.—The fruiting of this shrub is unusual, but Miss Mellish, Hodsock Priory, Worksop, writes that it has fruited very freely against a south-west wall in her garden this summer. It is of considerable interest to learn of out-of-the-way shrubs fruiting, such items being of sufficient interest to place on record.

Agathæa cœlestis.—This charming South African plant is one of the few blue flowers that comes freely in the winter; in fact, at almost all times of the year. To obtain the flowers at this season of the year, the young growths should be pinched during the summer; these will then produce quantities of the dark blue flowers for a long time. As pot plants they will be found most valuable, while a few of the flowers with Ferns in specimen glasses are very pleasing in a cut state.

Sweet Lavender.—In aid of the War Horticultural Relief Fund, Miss Swan of Warlingham distributed packets of Lavender at the fortnightly meeting of the Royal Horticultural Society on December 7, and at the Carnation Show on December 8, at the Royal Horticultural Society's Hall, Vincent Square, S.W. The Lavender had been grown in her field at Warlingham and was made up into various devices of her own design. This opportunity of supporting the fund met with a ready response, there being many purchasers for the pretty and distinctive Christmas gifts, such as may be afforded even in war-time.

The Garden Varieties of *Ceanothus*. Much more attention is now being paid to these beautiful autumn-flowering shrubs. One of the earliest hybrids introduced was *Gloire de Versailles*, and it is no doubt largely due to the success of this variety that they owe their rise in popular favour. Their season of flowering extends from July until November, and even now they are quite bright. There are many shades of colour, varying from white and pink to rich rose, pale blue and deep purple. A

selection of sorts in addition to *Gloire de Versailles* should include *Indigo*, *Georges Simon*, *Perle Rose*, *Gloire de Plantières*, *Ceres*, *Arnoldii*, *Fantaisie* and *Marie Simon*. The giving of awards of merit this autumn to *Fantaisie* and *Georges Simon* by the Royal Horticultural Society will draw more attention to these beautiful shrubs.



A WELL-BERRIED SPRAY OF THE PRICKLY HEATH (*PERNETTYA MUCRONATA*).

deep regret of the sudden death, on the 12th inst., of the Hon. John Boscawen of Tregye. He was at one time a member of the Council of the Royal Horticultural Society, but he will be best remembered in connection with the gardening section of the Royal Agricultural Society, the success of which was largely due to his untiring efforts, and the Truro Daffodil Society.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Climbing Plant from a Tuber.—I am sending a specimen of a climbing plant which grows from a tuber. Will you please tell me the name of it through the medium of your paper?—PRESTON. [The plant sent for identification is *Tropæolum tuberosum*, or the Peruvian Nasturtium. The tubers are freely produced, and are said to be edible when boiled like a Potato. It is only half-hardy, and tubers should be taken up in the autumn and stored away like Dahlia roots.—ED.]

An Indian Garland Flower.—I am sending a photograph of a very beautiful spike of *Hedychium gardnerianum*. The flowers are lemon coloured and very fragrant. I find that it does best when planted out in the conservatory, for its roots do not like to be confined in pots. I have heard it stated that this species is nearly hardy, but have never seen it growing outside and should not care to risk my plants, which each year flower so handsomely, to the fickle climate of an English winter.—O. M. G., *Hants.*

Actinidia chinensis.—Your correspondent "B." asks what is the best aspect for *Actinidia chinensis*. In my experience, shade is essential. I have one over 20 feet high on a north wall here, and another over 30 feet high, with a lateral spread of 15 feet, on a west wall, but so shaded by large trees on the south and west that it is never touched by the sun. It is important to remember that a male plant should be placed near the larger female type if fruits are desired, though I have never yet obtained them here.—L. H., *Nuneham Park, Oxford.*

Mice in the Garden.—The correspondent who wrote you about his yellow *Antirrhinum*s being eaten by mice may be interested to hear that the mice in my garden also pick out yellow plants, but in my case they are yellow *Crocus* corms. I have a long border planted with clumps of *Crocus* in four different colours at intervals down its full length. Last winter the yellow *Crocuses* were picked out all down the border, scratched up and eaten. The result was, of course, that last spring there was hardly a yellow flower to be seen, while the blues and the whites had increased very much, having been there about four years. We caught seven of the mice. They were of a brown colour, with very large eyes and ears and long tails. We are replanting the yellow *Crocuses* this autumn, and I am curious to see if the mice will pick them out again. There are many other bulbs in the border—*Snowdrops*, *Daffodils* and *Tulips*, none of which is ever touched, and which come again year after year.—C. L. Cox, *Tanllan, Dolgellay.*

The Origin of the Loganberry.—Mr. E. A. Bunyard's note on the Loganberry is valuable as giving us rather more detail about its origin than we had before seen in print. But he seems to me to raise larger doubts than necessary about its parentage, which it surely bears pretty plainly on its face, or, perhaps I should say, in its qualities. Given the certainty that the Dewberry was its mother, it is surely also certain that a Raspberry

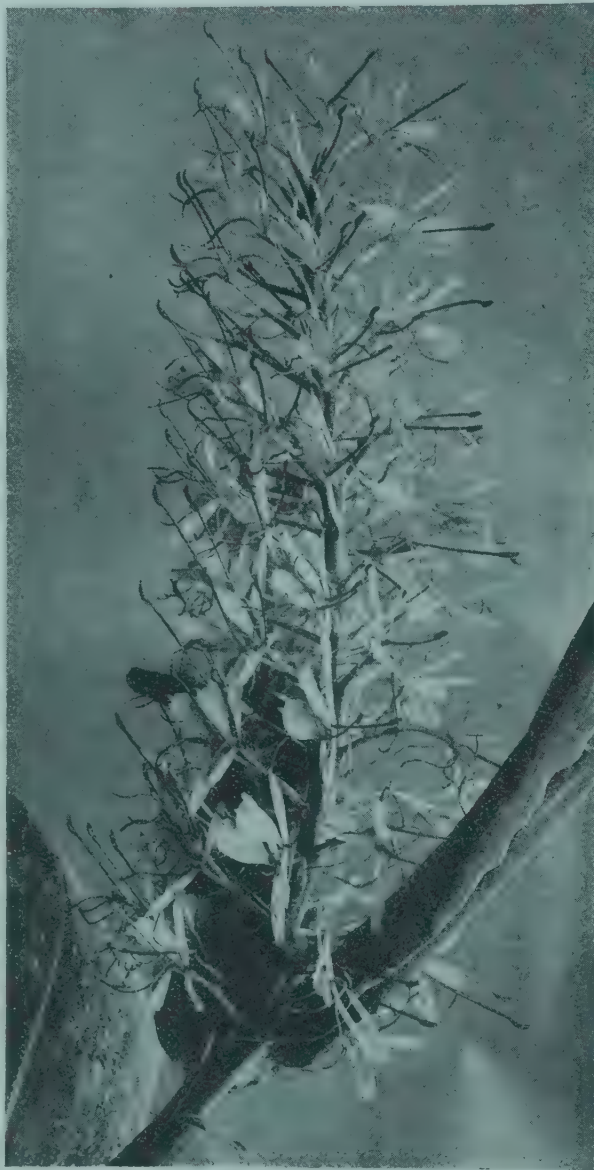
was its father, for it could not conceivably have inherited its undeniable Raspberry flavour from any other *Rubus*. I have for many years interested myself in the Rubi, and out of all that we know, including the large recent additions from China, I have never found one with the remotest affinity in flavour to the Raspberry. On this account, and because of other obvious differences, I cannot believe that any pair of Rubi excluding the Raspberry could produce the Loganberry, or that the Dewberry could possibly "mutate" into the Loganberry. The theory of mutations is as yet in such a tentative stage that it is well not to summon it into court when explanation is possible

nearer to our Blackberry. I may mention that here we propagate the Loganberry not by the slow method of pegging down its tips, but by cutting the ripened canes into lengths of about 9 inches and burying them all but two eyes. We find no difficulty in striking them.—G. H. ENGLEHEART, *Dinton, Wilts.*

Is it Profitable to Grow Vegetables for Exhibition?—I have just been reading in the pages of *THE GARDEN*, issue December 11, Mr. James Smith's remarks on the above, and I must confess I am rather puzzled to understand his grounds for writing as he does, as he distinctly states he is an old exhibitor and a firm believer in exhibitions for stimulating interest in the cultivation of vegetables, after which, in the same short note, he condemns the same as a waste of land and labour which could be put to a better purpose. Now, I suppose none will deny but what any form of exhibiting does entail a certain amount of extra care, trouble and expense; but to hundreds of exhibitors it gives much pleasure as well as stimulates industry. I paid a short visit to the Smithfield Cattle Show on Tuesday, December 7, and I remarked what a pity it would be if such a show was abandoned, as the amount of interest in and trade done at such a show is remarkable. The same applies to every form of competitive exhibition, and especially in relation to vegetables, as without such friendly rivalry I doubt very much if we should be in possession of such splendid types of vegetables as we have at the present day. In many cases market growers strive to succeed in growing some of the finest vegetables, and I am prepared to say these rank among the most successful. By all means crop and intercrop every piece of ground available, especially during such anxious times; but surely one should not be denied if he thinks fit to obtain the finest produce that the land will give. I know of no more enthusiastic secretary than Mr. Smith, and I have had the pleasure on many occasions of seeing the splendid produce which has been brought together under his care, but I certainly fail to understand his views as related in the issue of *THE GARDEN* mentioned.—EDWIN BECKETT, *V.M.H.*

Lapageria rosea alba.—It may be of interest to your correspondent "K. G. J." to know that the specimen referred to as growing in the Jardin des Plantes, Paris, flowered there for the first time in Europe in 1855. For its general distribution in this country we are, however, indebted to Messrs. James Veitch,

whose collector, Richard Pearce, of tuberous *Begonia* fame, sent home seed and living specimens from Chile in 1860. According to "*Hortus Veitchii*" it flowered with Messrs. Veitch for the first time in 1862, and was exhibited with *Lilium auratum*—at that time rare—before the Royal Horticultural Society on July 2 of that year. The typical *Lapageria rosea* was first introduced by Mr. Richard Wheelwright, who sent a plant to the Royal Gardens, Kew, in 1847. The next year plants were received from William Lobb, then collecting in Chile on behalf of Messrs. Veitch, and from that time it gradually made its way into cultivation.—H. P.



FRAGRANT AND LEMON-COLOURED FLOWERS OF *HEDYCHIMUM GARDNERIANUM*.

without it. Many years ago in Lynton in North Devon, on the river bank just above the well-known "Watersmeet," I found, in a thicket of Blackberries and wild Raspberries, growing together, an obvious and excellent hybrid between the two, a fruit smaller than the Loganberry, but sweeter, and with the advantage of pulling off the core when gathered. I have once or twice seen the same intermediate on our Wiltshire Downs, where wild Raspberries and Blackberries commonly grow together, but they were inferior. We used to be told that the Loganberry is Blackberry × Raspberry, and it certainly looks and tastes like such a hybrid. Possibly the American Dewberry is unlike our English Dewberry and



BANKSIA INTEGRIFOLIA, HANDSOME IN FLOWER AND FOLIAGE.

A Late-Flowering Climber.—In a note to my letter of November 16 about the Passion Flower (*Passiflora carulea*) on my house being then in full bloom after severe frosts, you called it "remarkable," so it may interest you and others to know that, in spite of the still harder frosts and bitter weather at the end of last month, it is still (December 5) in full flower, and the thick foliage and large trails are as green and luxuriant as in summer. It is a curious thing, too, that the blossoms last, fully expanded, from two to three weeks. I have never seen Passion Flowers which remained open in summer for more than two days; in fact, that always seems their weakness, from a decorative standpoint. That the plant likes a south aspect or sunny situation is evidently quite a mistake, as one I put on the south side of a building, in a walled garden, with its roots alone shaded, is now, like all usually behaved Passion Flowers, yellow and dried up.—A. LA T., *Oxfordshire*.

Border Carnations.—I was glad to see Mr. J. L. Gibson's article on Carnations in THE GARDEN, issue November 27, page 579. To my mind he makes a remarkable statement *re* Dora Blick, undoubtedly a beautiful colour, but the petals are on the small side. My experience of this variety is that it has a remarkably strong stem, so much so that, when showing, it is necessary to wire the stem so as to bend it down and outward to show towards the judge, instead of facing the ceiling. Mr. Gibson has mentioned some good varieties and makes a bid for criticism. However, I should be glad if he will consider the following selection. Selfs: Bookham White or Farthest North, Daffodil or Mrs. Elliot Douglas, Fujiyama or General French, John Knox or Gordon Douglas, Elizabeth Shiffner or Dora Blick, Madge or Daisy Walker, Miss Rose Josephs or Irma. Fancies: Linkman, Pasquin, Lieutenant Shackleton,

Lord Steyne, Skirmisher. J. J. Keen, Fancy. Picotees: Mrs. J. J. Keen, Onward, Pure Gem, Queenie, Professor Burstall, Exquisite. If THE GARDEN could get a ballot of the best Carnations from, say, twenty of the best amateur Carnation growers, it would be most interesting, and I think the foregoing list would be well in the running. Most of these varieties have received highest awards at the various Carnation shows, and several have not been seen at the London Show yet. General French is the best scarlet I have seen; the same applies to Professor Burstall as a Picotee, and J. J. Keen and Pasquin as fancies.—H. W. FROSTICK.

Modern White Sweet Pea.—A good deal of correspondence has been published in the gardening Press this year on the respective merits of modern white Sweet Peas, and, as far as I am concerned, I have plumped for Constance Hinton every time. Mr. E. R. Janes of Wroxton Abbey Gardens gives his opinions in a contemporary, and they are surely worthy of consideration, for Mr. Janes has "done things"; he has almost swept the board at the leading Sweet Pea shows during the past season. Mr. Janes dismisses Norvic with a mere mention of its

name. At this I am not surprised, for, although I have seen Norvic very finely shown, the proof of the pudding is in the eating, and when I obtained seed from the leading distributors of it this year, it turned out unsatisfactory, inasmuch as a lack of rogueing was apparent, or else it shows a liability to sport. Anyway, I had pink and cream as well as white in the row. Mr. Janes has rather more to say about Edna May Improved, but this variety, which owes its reputation principally to the booming it has received from Mr. Walter Wright, evidently takes quite a minor place in Mr. Janes' affections; he practically sums it up as possessing length of stem and little other merit. For Constance Hinton, on the other hand, he has nothing but praise, and his experience coincides with mine and with that of numerous other growers with whom I have discussed it. We do not know what the future may give us, but at the present moment I pronounce Constance Hinton to be at the top of the tree. As grown here it has been a real beauty, of the purest white, with solid, lasting flowers of ideal shape, and so beautifully and gracefully placed on the stem that it would stand as a model in this respect for Sweet Peas of any other colour or variety.—F. HERBERT CHAPMAN, *Rye*.

BANKSIAS.

THESE Australian plants have handsome foliage and interesting flowers, and they are useful plants for a large house. Among the best species are:

Banksia collina.—The plant shown in the illustration below is about 6 feet high, and is now plentifully dotted with its curious and pretty yellow flowers. This species comes from the hilly districts and has small leaves, which terminate abruptly, as if bitten off. It was introduced in 1788 and is a handsome and interesting plant.

B. integrifolia has larger leaves of a dark green colour on the upper surface. The under surface is a silvery white. The plant from which the photograph was taken is about 16 feet high, and is now in flower in the Temperate House at Kew.

B. serrata is a dense-growing, handsome plant, having deeply serrated leaves about 5 inches to 6 inches long. It rarely flowers in this country. The flowers are red and about 6 inches long.

B. verticillata.—This has large leaves of a pleasing shade. They are dull green on the upper side and silvery white underneath, and have the midrib of a brownish tint. When the plants are tall—and they grow to a height of 18 feet or more—the leaves, arranged in whorls of fours or sixes, are very pretty as one looks at them from below.

Cultivation.—These plants may be propagated by cuttings inserted in sand and placed under a



BANKSIA COLLINA, NOW FLOWERING IN THE TEMPERATE HOUSE AT KEW.

bell-glass. The cuttings should be taken off at a joint, and only the leaves that are to be below the soil must be removed. The cuttings should be put in sand only deep enough to keep them in position. They do not like much bottom-heat. Belonging to *Proteaceæ*, they require ample drainage and careful watering. The pots ought not to be too large, and should have one-third of the depth filled with carefully arranged crocks. The roots run down among these and seem to thrive better there. The soil should consist of equal parts of good peat and loam, with plenty of sharp sand. *Banksias* do not like too much heat nor to be kept too close. If over-watered, or if they become too dry, they rarely recover. W. L. L.

RIVIERA NOTES.

A FEW notes this winter, when so few folk have dared to leave their native land for the South of France, may be of gardening interest. The summer has been a cool one, and very dry till October came in, when there was a great drop in the temperature, followed by rain for the rest of the month. This cold has retarded autumn growth and autumn-pruned Roses greatly, so that Oranges are still far from ripe at the end of November, and unless December and January prove unusually fine and warm, neither *Poinsettias* nor the Tree *Salvias* (*S. frutescens*) nor the Tree *Dahlias* will come to perfection. After four days of cold wind and almost frosty nights in the middle of November, the weather has become very fine and warm again, so gardens that are not deprived

of their masters and gardeners are fast recovering their winter beauty.

Nerines are becoming more cultivated, and that useful late-blooming bulb which is known as *N. Mansellii* in England and *N. tardiflora* out here is now in full flower. *Cypripediums* of the *insigne* type and its best forms, such as *Sanderæ*, *Chantinii* and others, are in beauty. *C. fairrieanum* and *C. leeanum* are, if possible, brighter in colour and freer in flower than under glass in England. Grown plunged in sand under the shade of an extra thick Olive tree, they require no care save an occasional watering all through the year; and I see a *Lælia anceps* that was tied to an Olive branch two years ago is thriving and throwing up more than one strong flower-spike, which will, however, need very good December sunshine and warmth to make it expand freely before the new year comes in.

It is sad to see the neglected *Carnation* terraces, though here and there a few blooms are grown for the local markets; and the terrible prices of coal and fuel make it quite impossible for any forcing of *Roses* under glass, which has been so great an industry latterly.

That fragrant winter-flowering shrub, *Buddleia auriculata*, scents the air, and *Freylinia cestroides* will carry on the fragrance throughout January. That most lovely of all the *Acacias*, *A. podalyriæ-folia* (which calls for a handier and more intelligible name), is one sheet of fairy-like blossom on silvery sprays of growth, and will last until *Acacia baileyana* comes into flower in the month of January. The well-known "*Mimosa*," *Acacia dealbata*, will wait till February is well in, with the Almond trees in their glory. *Bignonia Cherère* and *Bougainvillea Sanderæ*

are at their best now. *Bignonia venusta* is full of flower-bud and has already a few gorgeous orange heads of flower open, but with good weather it is at its best in the month of January, and is most lovely when scrambling through the branches of the old *Rose Lamarque*, pruned so that both shall flower together on a south wall in midwinter.

This autumn, for some inscrutable reason, I have never seen such glorious blooms of that capricious golden *Rose George Schwartz* as are now open. Grafted on various stocks to see which will prove the best, this year, at any rate, *Rosa bracteata*, the *Macartney Rose*, has proved the ideal stock, while the *indica* major stock, which has often given good results, is nowhere. I wish someone in England would bud it on *R. bracteata* under glass and give it a trial; it is still by far the most sumptuous of all rich golden *Roses*, with a fragrance all its own, but, being so capricious, it is little known or grown.

Roses generally are not promising this winter, and *Carnations*, as I have said, are far below their old standard; so we shall have to fall back on the flower of the country, the *Anemone*, which is now springing up strongly after the abundant autumn rains, and will in due time delight our eyes with its vivid and glorious colouring in early spring. *Violets*, I regret to say, are everywhere less good than usual, as they are more dependent on summer care, and cannot be left untended as can the *Anemone*. E. H. WOODALL.

THE JAPANESE SNOWBALL TREE.

THE *Viburnums* include many beautiful shrubs, such as the *Guelder Rose* and its companion the *Wayfaring Tree*; while, at the present

time, the fragrant ever-green *Viburnum Tinus* or *La urustinus* is flowering in almost every garden of repute in the country. But of all the *Viburnums* none can excel the Japanese Snowball Tree (*V. plicatum*) for effectiveness. In May it is smothered with clusters of white flowers resembling those of the *Guelder Rose*. It may be planted now, and no garden is complete without it, for it is one of the six most beautiful shrubs for English gardens.



THE JAPANESE SNOWBALL TREE (*VIBURNUM PLICATUM*).

THE "DAFFODIL YEAR BOOK."

"A NOVICE" is not pleased with what he calls my *ex cathedra* review of the 1915 issue of this book. A reviewer seldom pleases unless he writes only to please, and he necessarily writes *ex cathedra* when the Editor has put him into the chair. But let me assure "A Novice" that, despite more years at the study of this flower than I like to count, I feel myself yearly more and more of a novice as regards knowledge which can be formulated into working rules. It may, however, interest him to compare my somewhat longer experience in the matter of artificial and self fertilisation with what he gives as his own, and to read it into what I was constrained to say about that long list of "successful" but unflowered crosses.

"A Novice" has in six consecutive years obtained from Mme. de Graaff artificially fertilised an amount of seed which is enormously preponderant over the yield from the same plant left alone. Now I have grown Mme. de Graaff, chiefly for seed, for over twenty years, ever since its first introduction, and for many years in breadths of thousands, and have found its apparent law of seeding to be exactly the converse of this. Careful depollination and brush fertilisation will give me perhaps one pod in ten flowers, while a 50-yard bed left alone will set nearly every flower. This is so invariable in my field that we always cut off the fading bloom in our stock beds of this variety in order to relieve the bulbs from the strain of seed bearing. We seem to have evidence that this large seed crop is due to self fertilisation, seldom to pollen carried from other varieties. I have sown seed (1) from these "left alone" beds, (2) harvested and sent me by a friend in Surrey who does no crossing, and in both cases the resulting flowers show no cross at all, but are evidently spontaneous reproductions of Mme. de Graaff itself. They mostly show a marked tendency to revert to the yellow or bicolor Ajax, which was one of Mme. de Graaff's parents, the white blood reappearing in a much smaller proportion. Moreover (3) the percentage of seeds from flowers which have "missed fire" in the artificial crossing gives precisely the same range of form and colour.

Other raisers have reported to me their similar experience. Therefore the necessary inference is that Mme. de Graaff is in many, possibly in most, localities strongly self fertile. Here in South Wilts we have reason to believe that in exceptionally warm, dry springs it is apt to fertilise itself before the flower opens. I have had abundant proof that this is so with Poeticus under such conditions, and a thirty years' experience has made me think, though I should be slow to dogmatise after 300 years, that this occurs with Daffodils at large. I do not question "A Novice's" carefulness and accuracy, but his figures do not invalidate what I have written. I must point out to him that out of his six years' crossings of Mme. de Graaff, begun only so recently as 1910, a very small fraction can as yet have flowered, and he cannot yet know whether any or how many of the parent flowers were self fertilised. Messrs. Cartwright and Goodwin, whom he quotes, were new-comers to hybridising work when they printed

their assertion on this subject, and could scarcely have had material enough of their own raising to demonstrate it. Such statements carry probability only when based upon the investigation of large quantities over long periods. For these



PRIMULA SINO-LISTERI, A RARE SPECIES OF DOUBTFUL HARDINESS.

reasons I fear I must still maintain, in a quite kindly and Pickwickian sense, that it is absurd to call a cross successful before the arrival of the flower. Even in this sense I do not apply the term to Dr. Lower's own local and particular work, but only to the citation of his work as a universal guide for the Year Book's readers.

"A Novice's" reading is hardly as careful as his gardening. He says: "Mr. Engleheart assumes it to be impossible to depict a suggestion of colour differences in a photograph by the use of colour screens." I wrote the exact opposite, viz.: "It seems that colour can be satisfactorily rendered only by over-expensive colour photography or by some method of screening which it has here been found impracticable to use," i.e., that though the method is well known, there was apparently some reason against using it in the present issue. I am all for the continuance of the series of flower photographs, while maintaining that a "white all over" representation of a highly coloured flower is meaningless. Its colour is its point, and it is pointless if its colour is omitted.

Colour is yearly becoming more and more important in the appraisalment of new Daffodils. In form we have nearly reached perfection; in colour we are still in the crude elements. A faithful rendering of the more subtle and delicate colouring will, perhaps, always be impossible, but the stronger colouring, e.g., a red cup against a white or yellow perianth, can be suggested even in black and white, and no doubt the editor of the Year Book will in future contrive this.

G. H. ENGLEHEART.

PRIMULA SINO-LISTERI.

THIS interesting plant is the Chinese form of a Himalayan Primula which is known as *P. Listeri*. As in the case of the Sikkim Primrose (*P. sikkimensis*) and its Chinese form (*P. Pseudo-sikkimensis*)

ensis), the plants from the latter region appear to be more amenable to culture in this country, being more vigorous in habit and with larger flowers. The plant here illustrated was collected by Forrest for Messrs. Bees, Limited, in 1908. It was found growing on the Tali range in Yunnan. Closely allied to the well-known *P. obconica*, it has been found that it does not possess the irritant hairs peculiar to that species, which is a decided advantage. The acutely lobed leaves, on long petioles, are produced in rosettes, and in early spring the white flowers are borne in trusses. These last for a long time in good condition, making it a good plant for the cool house. Although plants stood outdoors last winter in a sheltered position, this species is of doubtful hardiness, and its usefulness is confined mainly to the cool greenhouse. It is easily raised from seed or propagated by division, and may be grown well in a cold frame potted in light, rich, sandy loam. W. I.

A BEAUTIFUL GREENHOUSE SAGE.

SALVIA LEUCANTHA is a very distinct plant and makes a handsome subject for the greenhouse at this season of the year. This Mexican Sage is shapely in habit, with narrow leaves which are deep green on the upper surface, but covered with a fine down underneath, while the flowers, which are produced in long spikes, are quite woolly in aspect. They are of a mauve rose colour, and against the white woolly down, are very pleasing and worthy of a place in all greenhouses at the present time.

A HARDY ARUM LILY.

CALLA ÆTHIOPICA.

COMMONLY known as Arum Lilies and generally met with when grown as greenhouse plants, Callas are invaluable and easily grown; but it is to their uses as water plants and used as clumps in the herbaceous border that I would refer. Colonies of these, when seen flowering profusely, are a pretty sight, and where a sheltered position can be found for them, a trial is well deserved. They are, I think, much hardier than many imagine, and seek protection during winter below the surface of the water. They bloom, too, at a season when other flowering aquatics are none too plentiful, and, once planted, are no further trouble. A sheltered spot should,

PLANTS FOR THE WATER EDGE.

EVERYONE who has been on a walking or boating tour along the upper reaches of the Thames—say, for instance, from Wallingford to Lechlade—knows the great beauty of our native water-side flowers. It may be we have passed a spot by the riverside a thousand times without paying any special attention to it, when one day a picture perfect in harmony comes into view. *Rosa arvensis*, with long, overhanging branches almost touching the gently flowing stream, is smothered with pale single Roses; the yellow Flag Iris (*I. Pseudacorus*) is at its best, and around its leaves may be seen the bright blue Water Forget-me-not (*Myosotis palustris*) and the flimsy pink petals of the Ragged Robin, Wild

Under Wytham Woods the meadows are marshy, and here and there occur the Buckbean (*Menyanthes trifoliata*), *Thalictrum flavum*, *Orchis latifolia* and the blue-flowered *Geranium pratense*. Other Thames-side flowers in this neighbourhood are *Epilobium hirsutum*, *E. parviflorum*, the Purple Loosestrife (*Lythrum Salicaria*), *Caltha palustris* or Marsh Marigold, Skull-cap or Hedge Hyssop (*Scutellaria galericulata*), the Water Mint (*Mentha aquatica*), Yellow Loosestrife (*Lysimachia vulgaris*), Money-wort or Creeping Jenny (*L. Nummularia*), Guelder Rose or Water Elder (*Viburnum Opulus*), now showing rich crimson and purple foliage, and shining, half transparent berries; the Flowering Rush (*Butomus umbellatus*) in shallow waters; the Arrow-head (*Sagittaria sagittæfolia*), the Water Plantain (*Alisma Plantago aquatica*), the Water Violet (*Hottonia palustris*) in soft mud banks and submerged in water; that graceful Sedge, *Carex pendula*; the Marsh Horsetail (*Equisetum palustre*) and the Great Horsetail (*E. maximum*), most beautiful relics of a bygone flora; Marsh Helleborine (*Epipactis palustris*), the Grass of Parnassus (*Parnassia palustris*) in marshy places and bogs; the Bitter Cress (*Cardamine amara*), and the Cuckoo Flower or Lady's Smock (*Cardamine pratensis*). The latter, curiously enough, rarely produces seed, but is increased by its leaflets, which are carried about the meadows during flood-time and root in the muddy soil on the sinking of the water. The double-flowered form is not uncommon in the wild state. In the deeper backwaters the Water Lily is common, as is also *Nymphæa lutea*.

Many plants, although not natives, have become naturalised by the side of many streams in England, such as, for example, the Yellow Mimulus (*M. luteus*) and the two Balsams or Touch-me-nots, *Impatiens Noli-metangere* and *I. fulva*. These, like our true natives, the Purple Loosestrife, Willow Herb and Water Forget-me-not, are all quite easily raised from seed, and it is only necessary to plant the seedlings in muddy soil at the water edge, when they will soon establish themselves and spread along

the banks of streams or lakes. Plants like the Royal Fern (*Osmunda regalis*), double-flowered Meadow-sweet (*Spiræa Ulmaria flore pleno*), and Arrow-head (*Sagittaria sagittæfolia flore pleno*) are increased by division of the roots, and they may either be planted now or in March.

Iris sibirica, with lilac purple or bluish flowers, makes a delightful show in early June if planted about the margins of lakes, ponds or streams. When the clumps become overgrown they are easily put right by dividing them up into smaller sections as soon as the flowers fade. *I. lœvigata*, a beautiful Iris of Japan in rich and varied colours, requires special treatment. In Japan it is grown in ricefields, which are heavily manured in winter when dry, and flooded by irrigation in the summer, when the Irises are about 2 inches under water. Here they are best planted in small mounds which are dry in winter and submerged in summer, although at Wisley they are grown most successfully without any special winter treatment. C. Q.



ARUM LILIES FLOWERING BY THE WATERSIDE.

if possible, be chosen, as rough winds are their greatest enemy. They form a succession to those grown in pots, and they may be cut with discretion and used for decorating without spoiling the effect. Unfortunately, their season of flowering is not prolonged such a length of time as those grown and treated with stimulants indoors.

As border plants these form a still longer season of growth and flower, and, where the flowers are wanted, form a useful addition. Stock is easily procurable where a batch of plants are grown inside to try them in this manner, and, as might be imagined, the plants are greatly benefited by a liberal addition of good manure to the soil. Planting may be carried out at the first favourable opportunity after the end of May, and the same applies to those grown in the water. They are very effective when grown in association with Bamboos, Globe-flowers, and last, but not least, *Gunnera manicata*.

Queenstown.

E. B.

Williams or the Meadow Pink (*Lychnis Flos-cuculi*). We see these wild flowers "with a child's first pleasure," as Wordsworth saw the Daffodils by the lakeside.

The Upper Thames, which flows through secluded country, is full of interesting waterside plants, although not remarkable for any very rare species. One of the most interesting is the Snake's-head Lily (*Fritillaria Meleagris*), or Toad's Head, as it is known in Wiltshire. It occurs in damp meadows around Oxford, and again between Colehill and Lechlade, where the river for a short space is bordered with *Ribes nigrum*. *Fritillaria Meleagris* is not the easiest of plants to cultivate. Like British Orchids, some people find them almost impossible. The bulbs may be lifted now, but what is of vital importance is that they should be replanted with out delay, for if allowed to get dry they are apt to lose their vitality. Where it is impossible to plant at once, they should be kept for a few days in sand or fibre.

OUR NATIVE TREES AND THEIR CONGENERS.—III.

By W. BOTTING HEMSLEY, LL.D., F.R.S., V.M.H.

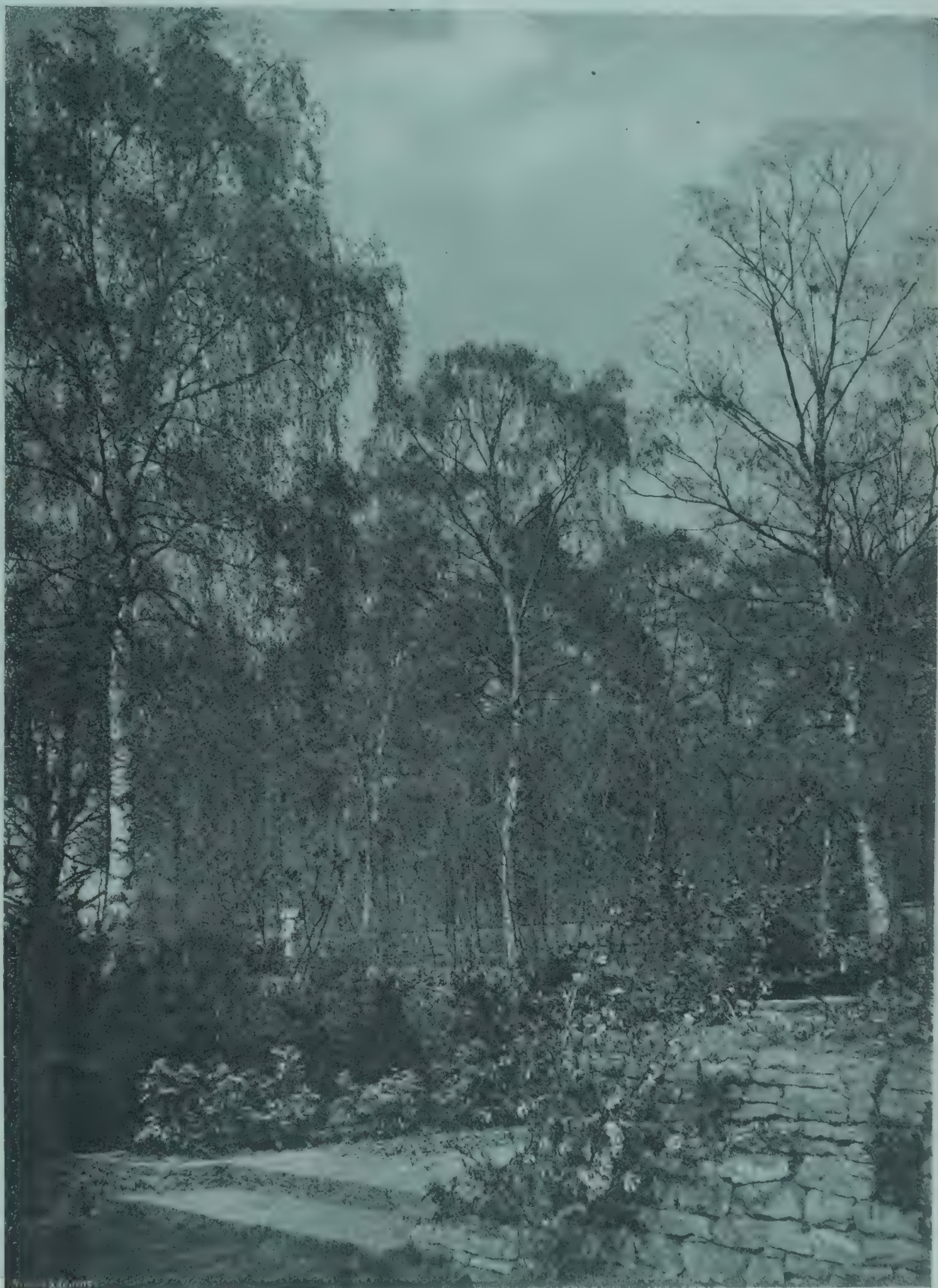
The Birch (*Betula*).—There are two native arboreal species of Birch, though some authors regard them as varieties of one. In addition there is a very dwarf shrubby species, restricted, in this country, to the mountains of Scotland. Birches are now quite confined to the temperate and arctic regions of the Northern Hemisphere, but certain fossil remains of the Australian tertiary strata have been identified as belonging to the genus *Betula*. Between thirty and forty species of this genus have been described, and they girdle the northern temperate and cold zones, forming large forests, especially in Europe and Asia. Upwards of a dozen species are recorded from China, half of these being of comparatively recent discovery. *Betula nana*, the Scottish Mountain Birch, extends into the Arctic regions, but it is not recorded from the extreme limits of flowering plants. Very dwarf tufted Willows and Birches constitute the bulk of Arctic woody vegetation. The so-called Birches of New Zealand are really Beeches, and some further information concerning them will be found under *Fagus*.

The Hazel (*Corylus*).—The Hazel, *Corylus Avellana*, of our woods and hedgerows rarely develops the habit and dimensions of a tree, but it occasionally forms a trunk as much as 3 feet in girth, with a crown 30 feet high. Some of the exotic species are normally trees. *Corylus Colurna*, for example, grows to a height of 60 feet, though this species also is often bushy. *Corylus* comprises eight or ten species, restricted to the north temperate zone and generally dispersed in this region, and most numerous in China. None of the American species reaches so far south as Mexico. *C. Avellana* has a wide distribution in Europe and Asia, and extends to North Africa.

The Hornbeam (*Carpinus*).—The genus *Carpinus* comprises about a score of species, a dozen of which are recorded from China; half of these discovered within the last quarter of a century. *C. Betulus*, the common Hornbeam, is considered to be indigenous in the south-east of England, and it ranges from South Sweden to the south of Europe and West Asia. There are several species in the mountains of North India, and *C. americana* skirts the eastern side of America, from Canada to Florida, reappearing in the mountains of Guatemala. Otherwise the genus is apparently confined to the north temperate

sections or genera: *Fagus* (*Eufagus*), inhabiting the temperate zone of the Northern Hemisphere; and *Nothofagus*, inhabiting the Southern Hemisphere; Chile and Fuegia; New Zealand and Eastern Australia; from Tasmania to Southern Queensland. Most botanists now agree that the Southern Beeches should be

given separate generic rank, though Cheeseman, in his "Manual of the New Zealand Flora," still retains the Southern species under *Fagus*. In this sense the genus comprises about a score of species, a dozen of which are Southern. *Fagus sylvatica*, the common Beech, is considered native in the Midlands and Southern England, but as an introduced tree both in Scotland and Ireland. Closely allied species occur in North America, China and Japan. Some of the Asiatic forms have been described as varieties of *F. sylvatica*. Most of the species inhabiting the Southern Hemisphere



SILVER BIRCHES ON THE OUTSKIRTS OF A FORMAL GARDEN.

The Beech (*Fagus*: *Nothofagus*).—Beeches consist of two

are large, handsome, evergreen trees; some of them constituting extensive forests and yielding valuable timber. Two or three of the New Zealand species attain the height of 100 feet, and *F. Cunninghamii*, one of the chief forest trees of Tasmania, sometimes reaches a height of 200 feet with a girth of 90 feet. Birch is the popular name of these trees in New Zealand, and *F. Cunninghamii* was named Myrtle Tree by the early colonists in Tasmania. Whether we consider the Northern and Southern species as generically different or not, the absence of the type and any close ally from the whole of the intermediate country is a remarkable fact in plant distribution.

The Oak (*Quercus*).—The distribution of the genus *Quercus* is dealt with in the present volume of *THE GARDEN*, page 351. There are two distinct Oaks wild in the United Kingdom, namely, *Quercus pedunculata* and *Q. sessiliflora*, with intermediate forms, supposed to be hybrids or seminal variations. About seventy-five species are on record from China alone, and large areas are still unexplored. Many species are indigenous in the tropical regions of India and Malaya, and one or more descend to the sea-level in Central America and Cuba. *Quercus Robur* is thoroughly naturalised in the Island of St. Helena, where it is common in some localities, grows to a large size, and fruits freely. Some Australian fossil remains have been referred to *Quercus*.

The Elm (*Ulmus*).—Babington, Bentham, Hooker and other writers on the British flora agree in defining two species of Elm, namely the common (*Ulmus campestris*) and the Wych (*U. montana*) with a number of forms or varieties difficult of classification. Several later botanists have made a critical study of the genus *Ulmus*, as represented in our parks and woods, and by experiment have arrived at a knowledge of the true pedigree of some, or all, of the puzzling forms, some of which were known and distinguished by Philip Miller and other writers of his period. In consequence of the confusion in nomenclature, the general distribution of *U. campestris* and *U. montana* is a little uncertain on some points, though both, as ordinarily circumscribed, have a wide area in Temperate Europe and Asia, and also extend to North Africa. Of the genus *Ulmus* nearly a score of species are on record, and they are dispersed almost throughout the north temperate zone. In America there is a southern extension to the mountains of Mexico, where one species occurs. In the Himalayas one species descends into the subtropical districts of Sikkim, and about eight or ten species inhabit China and Japan.

The *Ulmaceæ*, as an independent family, also comprise the genera *Celtis* and *Zelkova*. They are, or have been, regarded by some botanists as a tribe or sub family of the *Urticaceæ*.

THE GARDEN OF LA MORTOLA.

By G. FREDERIC LEES.

Author of "Wanderings on the Italian Riviera," "A Summer in Touraine, &c."

THE fact that the honeymoon of Mr. and Mrs. Maurice Bonham-Carter is being spent on that idyllic little cape which juts into the Mediterranean between Mentone and Ventimiglia once more calls attention to the celebrated garden of exotic plants which the late Sir Joseph Hooker described as being "without a rival amongst the

the finest chapters in the annals of horticulture—lasted for seven years, until March 24, 1875; and how for over thirty years longer Thomas Hanbury continued to plant and sow until the place became that "botanists' paradise" it is to-day.

I have often pictured to myself, when wandering amid the tropical vegetation of La Mortola and along its flowery alleys leading to spots whence you can obtain exquisite views of the rugged Italian Riviera and the turquoise green sea, what the denuded La Mortola must have been like when the two brothers began their work. Imagine them scattering the seeds of *Rhamnus Alaternus*, *Quercus Ilex* and Ivy among the rocks of the valley; planting Roses from their father's garden at Clapham; watching the growth of Passion Flowers, Pæonies and Cedars of Lebanon in the place of grass and weeds; and tending throughout the years the exotic plants—including some eighty varieties of *Acacia*, many kinds of *Cistus*, *Eucalyptus*, *Cupressus*, *Ficus*, *Genista*, *Juniperus*, *Magnolia*, *Melaleuca*, *Yucca* and *Wigandia*—which they had received from the gardens and horticultural establishments of the French Riviera and elsewhere.

Everything that was new, or rare, or curious in the plant world, provided there was a chance of it growing at La Mortola, was obtained. From the *Jardin des Plantes*, at Paris, came several new plants, among them two specimens of an Australian Palm, *Livistona australis*, and one of the large Chilean Palm, *Jubæa spectabilis*, which are still in the garden. The little *Erigeron mucronatus*, now half wild, not only at La Mortola, but also at many places in the neighbourhood, came from Professor Planchon of Montpellier; and from Sahuts' nursery garden at the same



ALOES AND THE BOLE OF A GIGANTIC BLUE GUM TREE (*EUCALYPTUS GLOBULUS*) AT LA MORTOLA.

principal collections of living plants in the world." Many of my readers have certainly already heard of La Mortola and some, perhaps, have visited it, but one cannot tell too often—at any rate in outline—the romantic story of how Thomas Hanbury, in 1867, when in his thirty-fifth year and fresh from the East, where he had acquired a large fortune, discovered the little peninsula named after the Myrtle and purchased it, with an ancient Italian country house, the Palazzo Orengo; how he set to work, in collaboration with his favourite brother, Daniel Hanbury, an eminent botanist and pharmacologist, to accomplish that dream of his youth "to make a garden in a southern clime, and to share its pleasures and botanical interests" with that brother; how that beautiful collaboration—truly one of

place arrived many interesting forms of Citrus, including the Bergamot. Daniel Hanbury possessed a very wide circle of botanical friends, so that he was able to obtain rare and valuable plants from all parts of the world. He devoted special attention to obtaining those of economic and, especially, pharmaceutical importance.

Thus, year after year, the two brothers sowed and planted. As early as June, 1868, forty different species of succulents are mentioned in their note-books; and in the autumn of the same year the collection had doubled, thanks to specimens from Kew, Paris, and an old friend at Reigate, the late William Saunders. Most of the large Agaves and Opuntias, now such a striking feature of La Mortola, date from the very first years of that brotherly and touching collaboration.

To mention but a tenth part of the plants and trees which appeal to the botanist and garden-lover is impossible in the limited space at my disposal; all that I can attempt to do is to give the following brief notes on certain striking species.

Most of the Acacias grow well. One that is particularly noteworthy is the Mexican *A. sphærocephala*, which provides an example of that myrmecophily which Belt first pointed out in his "Naturalist in Nicaragua." The long needles of the plant are inhabited by ants, which obtain food and drink from the leaves of the plant, which they defend against herbivorous insects.

Agaves are quite at home and attain their full growth. The largest are *A. salmiana* and *A. atrovirens*, much cultivated in Mexico for pulque. Next in size comes *A. Franzosinii*, which the late Professor J. G. Baker of Kew called "The Prince of the Agaves" on account of its beautiful greyish white or bluish leaves. The smallest of the Agaves is *A. pumila*, which never grows taller than 2 centimètres to 3 centimètres.

Aloes thrive equally well, and have become so well acclimatised that they have adapted their flowering season to the Riviera latitude. The most beautiful species, which flower in South Africa during June and July, bloom at La Mortola from Christmas until spring.

The Argan Tree of Morocco was grown from seed received from Daniel Hanbury in 1870, and is interesting because a kind of oil is made from its fruit. At La Mortola it is a thorny shrub, with fruit the size of an Olive.

Among the most beautiful plants in the garden are the Buddleias, especially *B. madagascariensis*, a huge climber covered in spring with hundreds of long, fine yellow racemes. *Casimiroa edulis* is represented by two fine trees, 9 mètres high. In October it produces a good crop of fruit, which the late curator, Herr Alwin Berger, told me is delicious when eaten at once, but becomes very bitter after a few days.

The collection of Agrumi is one of the most complete in the world. There are even a few small specimens of the form *Bizzaria*, which Risso called "the most singular and curious tree in the whole of the vegetable kingdom," since it produces fruit bearing the characters of Oranges, Lemons and Limes. The form *Citrus japonica*, known as "Buddha's Fingers," owing to the carpels at the top of the fruit being like the fingers of a hand, is also there.

There were once fifty different species of *Eucalyptus* at La Mortola, but Thomas Hanbury reduced the number, as they took up too much

room. The largest of these trees—it is now so gigantic a specimen that I could photograph only a portion of it—is a specimen of *E. globulus*, which measures 5·5 mètres at its base and has a height of 24·5 mètres. When planted in the spring of 1869 it was 90 centimètres high. From this fact alone it may be judged what a change has come over the vegetation of La Mortola since the bare forest land of the little cape was taken over forty-eight years ago.

ROSE MME. ALFRED CARRIERE.

This is one of the most beautiful of summer and autumn flowering Roses. It is not a novelty, but it is welcome everywhere, on pergola, and in both town and country gardens. It seems



ROSE MME. ALFRED CARRIERE IN A SURREY GARDEN.

indifferent to its surroundings, and the large double flowers, as shown by the photograph sent by Mr. C. Martineau of Esher, and taken in the garden of Mr. J. Thorneby in the same village, are produced in great profusion. As a writer says: "Late in the summer and throughout the autumn many are the Roses that may be cut long stalked for free arrangement in water; but early in June there is only this one good Rose that can be so used." Mme. Alfred Carrière, classed as a Hybrid Noisette, has large, pale leaves of the Tea Rose character and large, loose flowers of a low-toned warm white, capital to gather into a loose bunch in the hand and put straight in water without elaborate arrangement. It grows and blooms early, and is a Rose of much grace and beauty. In the National Rose Society's official catalogue it is described as the best white, hardy climber.

NEW AND RARE PLANTS.

AWARDS OF MERIT.

Carnation Malcolm.—A Perpetual-flowering sort of large size and rosy scarlet colouring. Shown by the Misses Price and Fyfe, Birchgrove, East Grinstead.

Chrysanthemum James Fraser.—An exhibition Japanese of the largest size and great depth. The colour is best described as brassy yellow, which, with the long drooping petals, renders it most distinct.

Chrysanthemum Flossy.—The largest pure white single we have seen, the colour being exceedingly pure and good. It should be most useful in decoration. These were from Messrs. W. Wells, Limited, Merstham.

Odontioda Aphrodite.—A remarkable hybrid novelty, the purplish, mauve-shaded sepals and petals freely freckled with white being in fine contrast to the golden-crested lip. Shown by Messrs. Charlesworth and Co., Hayward's Heath.

Lælio-Cattleya St. Alban (L.-C. Golden Glory × *Cattleya dowiana aurea*).—A very beautiful and distinct novelty. Sepals and petals old gold to palest orange, the frilled lip of rich red orange, deepening at the tube, where it is heavily lined. From Messrs. Sander and Sons, St. Albans.

Lælio-Cattleya Invincible var. His Majesty (L.-C. dominiana × L.-C. blechleyense).—The sepals are of purplish hue, the handsome lip of rich crimson. From Messrs. Sander and Sons, St. Albans.

SEEDLING COMMENDATION CARD.

Odontioda Armstrongæ (O. Bradshawæ × *Odontoglossum Armstrongæ*).—A very beautiful

variety of reddish chestnut tone, freely reticulated white, the rich mauve coloured lip rendering it very distinct. From Messrs. Armstrong and Brown, Tunbridge Wells.

The foregoing novelties were before the Royal Horticultural Society on December 7, when the awards were made.

A SELECTION OF CHRYSANTHEMUMS.

NEARLY every cultivator grows more varieties than is desirable each year. Those who have had much experience reduce the number as much as possible; but as new varieties are placed on the lists every year, some of these must be tried. Many amateurs have not the necessary space to devote to new sorts, and so they and beginners depend to a great extent on the results of trials made by others who possess plenty of space, both outside and inside the houses. The following list will prove helpful to many readers. The varieties named have done remarkably well during the past season, and may be relied on by amateur cultivators.

Twenty-Four Japanese for Exhibition.—

Mrs. James Gibson, mauve pink, natural break, first crown bud, 4 feet high; Queen Mary, white, should be stopped early in April, first crown, 4 feet; Miss A. E. Roope, 4 feet 6 inches, stop plants third week in March, first crown—this is the finest yellow; Francis Jolliffe, creamy yellow, petals edged light rose, natural break, first crown, 5 feet; Mrs. Gilbert Drabble, pure white, stop plants the third week in April, first crown, 4 feet; Bob Pulling, yellow, natural break, first crown, 3 feet 6 inches; Rosamund, primrose, suffused old rose, 4 feet; F. S. Vallis, pale yellow, natural break, first crown, 5 feet; Amy Poulton, flesh pink, stop first week in April, first crown, 3 feet 6 inches; Lady Talbot, straw yellow, stop early in May, first crown about August 10, then a deep, fine bloom may be expected; Dandy, old rose, amber reverse, stop March 20, second crown, 4 feet; Mr. Keith Luxford, white, slightly shaded green, natural break, first crown, 4 feet 6 inches; His Majesty, velvety crimson, natural first break, 3 feet 6 inches; H. E. Converse, reddish bronze, gold reverse, natural break, first crown, 4 feet; Pockett's Crimson, a deep, rich crimson, stop first week in May, 3 feet—if the natural break occurs about that date, first crown buds will be available at the right time in August; William Turner, pure white, stop late in May if natural break does not occur then, 4 feet; Mrs. R. C. Pulling, light yellow, stop early in April, first crown, 4 feet; Mrs. R. Luxford, Indian red, natural break, late first crown, 3 feet; Master James, chestnut red, natural break, first crown, 3 feet; Marie Loomes, chestnut terra-cotta, natural break, first crown, 4 feet; Fred Chandler, red, gold reverse, stop late in March, first crown, 3 feet 6 inches; Miss Elsie Davis, rosy mauve, natural break, first crown, 3 feet 6 inches; Mrs. Edgar A. Tickle, mauve pink, natural break, first crown, 4 feet; and Kara Dow, bronze, gold reverse, natural break, first crown, 4 feet. It should be distinctly understood that the foregoing are Japanese varieties for exhibition purposes. Selections of other types will be given later.

AVON.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Cucumbers.—A sowing of Cucumbers may be made now to replace the plants which are supplying fruits during the winter months. Sow the seeds singly in 3-inch pots and plunge the pots in a hot-bed. The bed should be quite near the glass, so that the seedlings may have the benefit of its warmth till they have made some progress. When the young plants are fairly well rooted, transfer them into 6-inch pots, using a compost of two-thirds fibrous loam and one-third leaf-soil. In the meantime a hot-bed must be prepared in a light structure, on which to grow the plants. When ready, plant them in mounds of loam and leaf-soil about 5 feet apart. A temperature of 65° or 70° must be maintained, and during times of severe frost a covering should be placed over the glass at night to conserve the heat. The old plants may be encouraged to mature their fruits for some time to come by careful attention to the regulation of young growth, watering, and the maintenance of an equable temperature.

Late Grapes.—All late Grapes should have been cut by this date, so that the Vines may have their necessary rest. The borders will be in need of a thorough soaking of water, and if they are in a clean, healthy condition, a good soaking of diluted farmyard drainings will be of great benefit. If the borders need attention in regard to renovating or extending, this work should be done at once. The pruning of all Vines must be completed without delay.

Plants Under Glass.

Mignonette.—The plants raised in the autumn may be shifted into 5-inch pots when ready, using a compost of loam, leaf-soil and brick rubble. A shelf near the glass in a cool house will suit them till they commence to flower. They will now require the support of neat stakes.

Cyclamen.—The young plants which were raised from seed in September are now ready for a shift into 2½-inch pots. A compost of loam, leaf-soil and sand will suit them. When potted, stand them on a shelf near the glass in a house having a temperature of 60° or 65°. The pots should, if possible, be stood on a moist base or plunged in boxes of fibre. Spray them two or three times a day with lukewarm rain water. Old plants which are flowering must be given plenty of stimulants.

The Flower Garden.

Newly Planted Roses.—In the event of a severe spell of frost, no time should be lost in protecting Roses which have been recently planted. Strong winds will often cause newly planted Roses to become loose in the ground, in which case they must be made firm by pressing the soil about the roots with the foot. Briar stocks may be planted at any time now when the weather is open. As a rule, suitable Briars may be found in the neighbourhood for this purpose. Roses and Brambles which have been planted in the woodland need pruning or thinning annually. In some cases it may be necessary to cut them down to the ground.

Carnations.—Should there be danger of the plants being damaged by game, the beds must be protected by placing wire netting around them. Frequent light dustings of soot will also help to keep game off. Examine the plants after severe frost, and press the soil about them where it has become loose. A handful of coal ashes placed around the collar of each plant is an excellent protection, should the weather be unusually severe.

Box Edgings.—The planting of Box edgings may be carried out at any time now when the weather is open. Gaps may also be filled up where these have occurred. Cuttings for this purpose may be taken from the common Tree Box, but they must be obtained from plants in exposed situations.

The Hardy Fruit Garden.

Renovating Old Orchard Trees.—An effort should be made to keep old orchard trees in a good fruit-bearing condition, especially valuable varieties.

One of the chief causes of a general weakening of the trees is neglect in pruning or thinning the branches annually. It is not uncommon to see trees growing in orchards literally choked with weak, useless growth. A judicious annual thinning of such trees would quickly bring them back to a healthy, fruit-bearing condition. Valuable old trees should also receive assistance in the matter of feeding. At this time of year there is always a plentiful supply of liquid manure in the farmyards, which should, if possible, be carried to the trees. Artificial manure will also be beneficial, but this should be scattered over the roots during wet weather so that the rains may wash it down.

The Kitchen Garden.

Early Peas.—A sowing of Peas may be made outdoors on a warm border when the ground is in suitable condition. The seeds should be sown in shallow trenches, and if the ground is on the wet side, a little dry soil from the potting-shed may be scattered along the trenches previous to sowing the seed. The variety Pilot is excellent for this sowing. Mice must be watched for till the seedlings are through the soil. Traps should be kept constantly set along the rows for these pests.

French Beans.—A sowing of a dwarf variety, such as Osborne's Forcing, may be made now in 7-inch pots. A good substantial compost must be used, and room should be left for a top-dressing of soil when the plants are setting their pods. A position quite near the glass must be given them, and a temperature of 60° or 65° maintained.

Onions.—For producing large bulbs, a sowing may now be made either in shallow boxes or 3½-inch pots. Sow the seeds thinly, so that the seedlings may receive little damage to the roots when transplanted to other boxes or pots. A compost of loam, leaf-mould and manure from the Mushroom-house will be found suitable. Place them on a shelf in a Peach-house which has just been started.

Cauliflowers.—The plants in cold frames must be given abundance of air whenever possible. Keep a careful watch for slugs. They may be kept off by scattering lime around the sides of the frame. Keep dead leaves removed, and where the plants are planted out, the soil must be moved occasionally with a pointed stick.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Broccoli.—During very severe weather it will be much safer to run no risks, but to protect the plants with a light covering of clean straw or Bracken. Upon the return of mild or wet weather it should be at once removed.

Parsley, although fairly hardy, should be protected if good clean leaves are to be obtained conveniently to supply demands. Either frames or other glass protection can be used, and where the plants have already been well stripped, some can be lifted and brought indoors where there is a certain amount of warmth—just enough to encourage a firm growth.

Potatoes.—Tubers started in heat at the present time will produce a fair crop in March if they are given correct treatment. Ten-inch pots should be used, half filled with loam and leaf-soil. The soil must be light, and yet rich enough to nourish the crop. The pots should be placed in an early vinery or Peach-house near the pipes, but in a position where they are close to the glass, so that the growth may be sturdy. May Queen is a splendid variety to grow in this way.

Peas.—Where one has plenty of accommodation for early vegetables indoors, a few pots of early Peas may now be sown. Being grown so early and during the very short days, they must not be expected to produce anything like an outdoor crop. A dwarf variety, such as American Wonder or Daisy, should be grown.

The Flower Garden.

Bulbs in Grass.—Early patches of Snowdrops will soon be appearing through the surface, and

no time should now be lost in giving the final brushing of any grass where they are situated.

The Rock Garden.—Additions or alterations should be carried out, if possible, before growth becomes active of any of the early subjects. This could proceed in mild weather, but should not be attempted while there is any trace of frost remaining in the ground. Some of the very free growing plants which have taken possession of more than their fair share of space ought to be lifted and replanted after having been reduced to reasonable proportions. Examine any plants which are of doubtful hardiness, and attend to protection if it is necessary.

Plants Under Glass.

Schizanthuses.—Plants raised from seed sown during autumn will in most cases require pinching if a bushy habit is to be obtained. The final potting must soon be done, also staking attended to. Continue to grow fairly cool, but avoid admitting air recklessly during cold weather. If fly is troublesome, fumigate the house with a nicotine compound.

Begonia Gloire de Lorraine.—As plants become shabby and pass out of bloom, they should have all flowering shoots removed and be partly cut back. If they are then kept a little drier than previously, they will benefit from the rest and are certain to break into growth with much greater vigour when required to produce cuttings.

Amaryllids.—These produce their flower-spikes very quickly if the plants have already had a good rest. Only good bulbs which are known to contain embryo flowers should be selected, and before putting them in heat they can have a little of the surface soil removed and be given a top-dressing which should contain a certain amount of some concentrated fertiliser.

Chrysanthemums.—As the single-stemmed plants pass out of bloom their places can be taken by the later decorative varieties. Plants after having been cut over should not be relegated to some out-of-the-way position in almost entire shade, otherwise the cuttings produced for future stock will be of poor quality. Plants being kept for producing cuttings should receive equally as much attention as those in flower.

Pot Roses.—A start can be made by bringing a few plants indoors if very early Rose buds are desired. Too much heat at the commencement would produce weak growths. The drainage should be examined at the same time as the pots are being washed. Only a very slight pruning should be given if it is at all necessary.

Fruit Under Glass.

Early Melons.—If the grower has plenty of heat at command right through the winter, a few seeds may now be sown. Where sufficient heat cannot be depended upon, it is more profitable to wait until early in January, as by sowing now in genial conditions ripe fruit can only be had from this sowing at the earliest a few days in advance. Sow in 2-inch pots in loam which has already been heated to the temperature of the house. Mice quickly discover and devour Melon seeds, so that precautions must be taken. As soon as germination has taken place, stand the plants on a shelf near the glass to encourage a sturdy growth, and see that a minimum temperature of 65° is maintained.

The Hardy Fruit Garden.

Spraying Fruit Trees.—This may be dealt with during mild weather when there is an absence of wind. If a proper spraying machine is used for making a fine spray, there is naturally less waste of material than when an ordinary syringe is used. The caustic alkali washes should not be used every season, as the bark becomes injured by too frequent a use of them. Every second or third year is frequent enough to remove lichen and general parasites. Where fruit trees are growing in vegetable quarters, care must be taken that the spray is kept off the vegetables.

Grafting.—Where any of this work is contemplated, the prunings of the varieties to be used should be preserved, properly labelled, and heeled in in some sheltered border where they will remain in good condition until required in spring.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, Bart.)

Castlemilk Gardens, Lockerbie, N.B.

ANSWERS TO CORRESPONDENTS.

FLOWER GARDEN.

BORDER CHRYSANTHEMUMS (R. M.).—The following varieties are of first-class merit: Goacher's Crimson, bright crimson, 2½ feet; Aquitaine; Normandie; Ethel Blades, chestnut scarlet, 3 feet; Dolores, terra-cotta, 2½ feet; Cranford Pink, a clear pink, 2½ feet; Cranford Yellow, 2½ feet; Chaldon, reddish crimson, very suitable grown as single plants, 2½ feet; Belle Mauve, mauve, a beauty, dwarf, 2 feet; Patricia, mauve pink, 2 feet; Provence, pink, gold tips of petals, gold centre, 2½ feet; Roi des Blancs, white, 2½ feet; Perle Rose, pink and rose, 2 feet; and Mrs. E. V. Freeman, deep crimson, 2½ feet to 3 feet. Notes on good varieties for pot culture and exhibition will appear in due course.

ROCK GARDEN.

WANTED: RABBIT-PROOF ROCK PLANTS (Mordington).—It is difficult to say which rock plants would be proof against rabbits, but it is likely that all the Sedums and Sempervivums would escape injury, probably also Campanulas and Saxifrages. The best plan, however, would be to protect your rock garden with wire netting; then you could grow whatever you wished. It is not necessary to give Grape Muscat of Alexandria sulphate of iron in order to make it colour. As a rule it requires a little more sun and a little higher temperature than most Grapes in order to finish it well.

ROSE GARDEN.

BEST ARTIFICIAL MANURE FOR ROSES (Maida Vale).—It is presumed that your Roses have not been planted this autumn, and can therefore be looked upon as established. In that event, the safest of the three artificial manures mentioned by you to be used as an all-round fertiliser is undoubtedly the mixture known as Tonk's Manure. It can be obtained ready made in small or large quantities from most horticultural sundriesmen, and should be applied after the pruning is completed, and watered in as directed. If, on the other hand, your trees have only been recently planted, avoid all artificial manures during 1916 as you would poison.

FRUIT GARDEN.

FIGS NOT RIPENING (W. H.).—When forced under glass the Fig is one of the most fruitful trees we have, always bearing two distinct crops of fruit, and sometimes three crops, every year. The first crop is always borne on the old wood of the previous year's growth, the second crop on the shoots of the current year's growth, and the third crop (which is of little consequence) from the lateral shoots which issue from the shoots of the current year's growth. Now, in the case of outdoor Figs, it is only the first crop (that which grows on the old shoots of the previous year's growth) which we can ripen in this country. That which the current year's growth produces scarcely ever ripens, and we suspect that is the cause of the fruit not ripening in your case. If you can send us a shoot with the fruit on, we can tell you. The way to encourage your trees to bear on the old wood is by thinning out the branches freely, so that sunshine and light can play freely among them in summer, and so ripen the wood and prepare the shoots to bear.

AMERICAN BLIGHT (M. Badger).—American blight is one of the most troublesome pests, and not easy to get rid of unless constant attention is paid to it. Where a number of trees are attacked, it would probably pay to purchase an injector and inject carbon bisulphide at the rate of 2oz. to a tree in four places near the roots, for at times the pest lives on the roots as well as on the shoots. This must be combined with spraying. Caustic soda, 2lb., dissolved in water, 10 gallons, is one of the best spray materials to use, but it must be forcibly applied. The ordinary mist-like spray usually applied is quite useless for the purpose of combating this pest. Paraffin emulsion used in the same way is also good. In summer, every spot affected should be painted with methylated spirit; or a mixture of 4oz. of carbolic soft soap with a gallon of water, and a wineglassful of paraffin stirred in, may be used. A stiff brush is best with which to rub the stuff well into the cavities.

TRAINING CORDON PEACH TREES (Tim).—Peach trees succeed very well on their own roots, but they succeed better when worked on the Plum stock. The training of a cordon Peach tree is a very simple and easy matter. You say of your seedlings that some have one stem, some have two, and some more. If we treat of a single cordon it will be enough, as the same treatment repeated will answer for double or treble cordons. The first thing to do with your young seedlings is to cut each stem down to within 9 inches of the ground. Next spring you will find that buds will break all over the stem of the cut-back shoot. Select the terminal bud to form the leading main upright shoot of next year. This must be allowed to grow its full length without interruption. The remaining buds on the stem should be treated as follows. Reduce them to three (at even distances apart) on one side, and two on the other. These side buds in due time will develop into shoots. As soon as this is the case, and when five leaves have been developed, these young shoots must be stopped (meaning the pinching off with the finger and thumb of the centre of the shoot). In consequence of this stopping, other small shoots will issue from the stopped shoots. These are termed sublaterals, each of which must be stopped at the third leaf. Any subsequent growth

which may proceed from the latter should be stopped in the same way. The centre shoot should be staked or nailed to the wall for support as growth takes place. This finishes the process of training for the first year. Second year.—Cut back the main shoot to within 12 inches of its base. The side shoots below should also be pruned back, the stronger of them to within 3 inches of their base, and those not so strong to within two buds of their base. There will, no doubt, be some flowers on these side shoots, and in due time possibly fruit also. Do not let a tree bear more than two fruits the first year. The same process of pruning will have to be continued each succeeding year until the cordon has attained to the height desired. After that, all shoots will have to be spurred back to within three or two buds of their base, as described above. It is generally the case with young Peach trees that two or three years after planting they develop some gross, sappy shoots which cannot be properly ripened, and therefore prove infertile. Indeed, if such growth is not arrested, in time it will prove to be the ruin of the tree. Therefore, as soon as indications of this sort are noticed, take up the trees in autumn, as soon as the leaves have fallen, cut back the strong roots by half their length, and slightly shorten all the smaller roots as well. This will cause an enormous multiplication of new, small, fibrous surface roots, which will react on the branches, compelling them to be of moderate growth and productive of fruit. The Peach is a tender tree, and sometimes its branches are injured by hard frost during winter; therefore it is advisable to defer its pruning until the middle of February.

MISCELLANEOUS.

NAMES OF FRUIT.—*Pitchford.*—1, Grosse Calebasse; 2, Duchesse de Bordeaux; 3, Thompson's; 4, Maréchal de la Cour; 5, Boston Russet; 6, Royal Nonsuch; 7, Cat's Head.—*F. G., Hays.*—1, Mère du Ménage; 2, Allington Pippin; 3, Emperor Alexander; 4, John Apple; 5, Newton Wonder.—*New Castle.*—Emperor Alexander.—*J. R., Holmwood.*—Apple Newton Wonder.—*Bristolian.*—1, Flanders Pippin; 2, Rambour Franc; 3, Rival (?); 4, Bess Pool.

NAMES OF PLANTS.—*Fish.*—Ferns, Aspidium angulare (woolly), Nephrodium dilatatum (branching), Arenaria peplodes (small white flowers).—*A. L. N.*—1, Cannot identify without flowers—probably Calanthe; 2, Buddleia species; 3, Selaginella kraussiana; 4, Helxine Solierii; 5, Ophiopogon japonicus; 6, Acer palmatum.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

THE fortnightly meeting held on December 7, the last for the present year, though below the average of such meetings, was not without interest or variety. Chrysanthemums from Merstham were of an imposing order, while Carnations from Hayward's Heath were presented in most artistic style. For the rest there were bright colour patches of Begonias and interesting exhibits of Fern variations from Edmonton, a fresh-looking group of berried and other shrubs from Richmond, and delightful exhibits of Orchids from a variety of sources. There were no exhibits of fruit or vegetables.

FLORAL COMMITTEE.

Present: H. B. May, Esq. (chairman), and Messrs. W. G. Baker, A. Turner, C. E. Shea, W. J. Bean, J. Green, R. C. Notcutt, G. Reuthe, C. B. Fielder, J. W. Moorman, W. Howe, T. Stevenson, W. Bain, J. Dickson, C. Dixon, J. T. Bennett-Poë, C. E. Pearson, J. Hudson, J. W. Barr, E. H. Jenkins and W. P. Thomson.

Messrs. Piper, Bayswater and Barnes, again contributed a very extensive exhibit of choice shrubs, coniferous plants and climbers, not a few of these being of high ornament. Of this type were Berberis Wilsonae (full of rich scarlet berries), the Pernettys (in rose, white and scarlet), Cotoneaster humifusa, Skimmias and others. Giant examples of Retinospora obtusa nana were very fine. Trochodendron aralioides is most distinct in leaf and branch; Berberis japonica intermedia and B. j. Bealii, both yellow flowered, are welcome at this time for leaf beauty, flower and fragrance; while Juniperus tamariscifolia aurea and Cryptomeria japonica elegans, the last now in bronzy garb, afford a colour beauty by no means common at this season.

Mr. L. R. Russell, Richmond, contributed berried and other shrubs and climbers extensively, such as Aucuba japonica vera, Crataegus Pyracantha and C. P. Lelandii (rich scarlet and orange scarlet fruited respectively) being most effective. Cotoneaster angustifolia, with yellowish, bird-proof fruits, was also good. Other interesting plants included Hedera Helix digitata aurea (now in bronzy attire), H. H. dentata variegata, Euonymus in variety and Eurya latifolia variegata.

Mr. G. Reuthe, Keston, Kent, had a considerable display of Norines. Prince of Orange, Plantii (rich scarlet), coruscans major, flexuosa alba, Mrs. Willoughby (salmon and white), Henry Merritt (pale salmon), India (of Fairmount Carnation colour), and Romance, which is in the same colour range as the last, were included. A few choice alpinas and handsome examples of Christmas Roses were also on view.

Mr. George West, The Nurseries, Datchet, set up a lovely group of the new Carnation Nora West, of lovely deep salmon tone and remarkably free flowering. It is stated to be a seedling from Winsor, and is possessed of the same free-flowering qualities.

Messrs. W. Cutbush and Sons, Highgate, N., exhibited a capital group of Carnations, of which White Wonder,

Sunstar (yellow), Lady Ingestre (salmon), Champion (the finest scarlet), R. F. Felton (pink), White Swan, Scarlet Carola, May Day and Carola (crimson) were very fine. *Solanum aculeatissimum* (ciliatum) in fruit in pots was also well staged amid ferns and small Heaths.

The Misses Price and Pyfe, Birchgrove, Sussex, set up a nice group of single and decorative Chrysanthemums and Carnations. Marion, deep pink of a very beautiful shade, is a self-coloured flower that should light up well. It is very effective in the mass. Rosy Amaranth, Mrs. Andrew Walker (bronze) and Bronze Cheer were other good Chrysanthemums. Of Carnations, Malcolm (rosy scarlet), Ian (clear pink), Snowstorm, with Jean and Alison (both of good pink) were also of note.

Messrs. H. B. May and Sons, Edmonton, displayed winter-flowering Begonias in groups, such as Mrs. Leopold de Rothschild, Masterpiece and Glory of Cincinnati (all of the Gloire de Lorraine set), with Winter Cheer (red), Optima (palest orange) and Exquisite (salmon and rose) of the tuberous-rooted section, all being well shown. Cyclamen, too, were very good, while a few of the crested and crispum *Scolopendrium*s were very beautiful. Of these, grandiceps and grande were among the most striking. A complete set of fronds of the variations of the common Polypody, *Polypodium vulgare*, were of much interest. Some twenty-six varieties were so staged, the most comprehensive collection we remember to have seen.

Messrs. Stuart Low and Co., Enfield, staged a very fine lot of Carnations in amply filled stands and vases. Some of the best were Pink Sensation, Alice (a novelty of merit), Mrs. Mackay Edgar (pink), Gorgious (the best cerise), Purple Robe, Satin Robe, Countess of Pembroke (cherry red), Matchless (fine pure white, large and handsome), White Enchantress, and Enchantress Supreme (one of the finest pink Carnations extant).

Messrs. Allwood Brothers, Hayward's Heath, arranged with much skill and effect a capital lot of Carnations fronting a mirror background, the arrangement reflecting the use and beauty of the flowers in a two-fold degree. Artistic and good in itself, and getting away from the stereotyped way of showing these flowers, the exhibit, while of educational value, also demonstrated originality of thought and the possibilities of the flower when required on a lavish scale. Vases, stands and pendent baskets were freely employed. Mary Allwood, Cardinal (pink), Wivelsfield White, Mrs. B. P. Cheney (scarlet and white fancy), Rosalind, Niobe (salmon), Carola, Triumph and Mrs. C. W. Ward were among the varieties used in this imposing lot. A groundwork of velvet and garnishings of Asparagus and Smilax also lent their aid.

The Misses Hopkins, Shepperton-on-Thames, again showed a small collection of alpine and allied plants in boxes.

Messrs. W. Wells, Limited, Merstham, arranged a table of superbly grown exhibition and decorative Chrysanthemums, the imposing display constituting a feature of the exhibition. Crimson Velvet, Bronze Beauty, Lady Mowberry (yellow) and Flossy (purest white—award of merit) are singles of high rank. Louisa Pickett is a giant exhibition Japanese; James Fraser, golden Japanese; while W. Rigby is of pale yellow tone and a sport from Mr. G. Drabble. Some of these giants were nearly a foot across.

ORCHID COMMITTEE.

Present: J. G. Fowler, Esq. (chairman), Sir Jeremiah Colman, Sir Harry J. Veitch, and Messrs. J. O'Brien, Gurney Wilson, W. Bolton, J. Wilson Potter, F. J. Hanbury, Pantia Ralli, T. Armstrong, A. McBean, W. Cobb, J. Charlesworth, J. E. Shill, C. H. Curtis, W. P. Bound, A. Dye, S. W. Flory and R. B. White.

Messrs. Armstrong and Brown, Tunbridge Wells, exhibited some exquisitely beautiful Orchid hybrids, of which *Odontioda Armstrongæ* (O. Bradshawæ × *Odontoglossum Armstrongæ*) received a seedling commendation card. The sepals are of reddish chestnut tone, reticulated white, and with deep mauve-coloured lip. *Odontoglossum Philo* (O. excellens × O. eximium) was also very fine, and there were half a dozen other seedlings of merit and distinction which we shall doubtless see again.

Messrs. Flory and Black, Slough, had a variety of *Cymbidiums* and others useful at this season.

Messrs. Hassall and Co., Southgate, showed *Cypripedium*s well, such as *Thalia*, Mrs. Francis Wellesley, *lecanium stoffordianum*, I. Carona and *Priam* being noted. *Cattleya Sylvia* and *C. alba perfecta* Miss Williams were other important items.

Messrs. J. and A. McBean, Cooksbridge, had well-flowered examples of *Odontoglossum Charlesworthii*, with *Cymbidium Doris* and a variety of *Cypripedium*s. Mr. Harry Dixon, Wandsworth Common, displayed *Odontoglossum armainvillierense* *Xanthotes*, *Cattleya labiata alba*, and *Oncidium cheirophylla* freely.

From Messrs. Charlesworth and Co., Hayward's Heath, came a highly attractive grouping of *Laelias*, a centre being formed of the richly coloured *L. gouldeana*, flanked at right and left by *L. autumnalis* and *L. anceps* in considerable quantity. *Cattleya o'brieniana* *alba*, *Laelio-Cattleya Golden Oriel*, *Odontoglossum*s in charming array and variety, with *Cypripedium*s, were all in force. The new *Odontioda Aphrodite* (see "New and Rare Plants," page 617) was also in this group. It is of much merit and distinction. The grouping was most effectively done.

Mr. C. F. Waters, Balcombe, Sussex, had a small collection of well-blotched *Odontoglossum*s, with *Cypripedium*s and others.

Messrs. Stuart Low and Co., Jarvisbrook, Sussex, contributed *Laelio-Cattleya luminosa* (bronze sepals and rich crimson lip), *Odontioda Cooksona*, O. *devosiana*, *Cattleya Raphaelæ* *alba*, *Brasso-Cattleya Imperatrice* de Russie and *Oncidium varicosum* among many others.

PERPETUAL-FLOWERING CARNATION SOCIETY.

The winter exhibition—the nineteenth held under the auspices of the society—was held at the Royal Horticultural Hall, Vincent Square, on December 8. From the standpoints of extent and competitive zest—particularly in the more important classes—it was one of the smallest yet held. For example, no exhibit was staged in Class 1 (for the Monro Challenge Cup), hitherto a leading feature of the show, and in which only the largest growers could compete with any possible hope of success, a like thing happening in the Brunton Challenge Cup Class, which was for three vases, twelve blooms each, of British novelties. These in the past, while adding weight and prestige to the show as a whole, have contributed not a little interest, together with the important object-lesson of high cultivation and the incentive to produce novelties at home, which is their respective aims. For the American Cup only one competitor staged. The gardeners' classes were generally strongly contested, and good flowers shown. Only one novelty, Mrs. Mackay Edgar (from Messrs. Stuart Low and Co.) received an award of merit. Following are the more important exhibits.

SECTION A (OPEN).

Messrs. W. Wells, Limited, Merstham, were the only exhibitors of three vases of twelve blooms each of American novelties distributed since January, 1912, for which the American Carnation Society offered a challenge cup. The varieties were Laura Webber (pink), Pink Sensation and Champion (scarlet), an excellent trio, well grown and staged.

COLOUR CLASSES.

Twenty-five blooms of any one variety, Enchantress, Lady Meyer, R. F. Felton or like shade. The latter was staged by Mr. G. Lloyd Wigg, Rockshaw, Merstham, who took first prize with excellent blooms; second, Messrs. W. Wade and Sons, Parsons Drive, Wisbech; third, Mr. J. C. Jenner, Rayleigh, both showing Enchantress.

Twenty-five blooms of Baroness de Brien, Pink Delight or like colour: First, Messrs. W. Wells, Limited, with Lord Kitchener, a lovely shade of salmon pink; second, Colonel F. C. W. Rideout, Clury Carnation Nurseries, Langley, with Baroness de Brien; third, Mr. H. T. Mason, Hampton Hill, who staged Enchantress Supreme.

In the rose pink class for a like number, Messrs. W. Wells, Limited, led with an excellent lot of Pink Sensation, Mr. J. C. Jenner taking second prize with Rose Pink Enchantress.

In the Lawson and Mrs. C. W. Ward class (cerise shades), Colonel F. C. W. Rideout took the lead with the last named variety, Mr. H. T. Mason, Hampton Hill, having a capital vase of Rosette in the second place. Only two entered.

For a like number of any one white-flowered variety, three entered, Mr. J. C. Jenner, Rayleigh, having a superb vase of White Enchantress in the first place, Messrs. Wade and Sons, Wisbech, and Mr. H. T. Mason, Hampton Hill, both staging White Wonder and taking second and third prizes respectively.

Three competitors also staged in the scarlet-flowered class, Messrs. W. Wells, Limited, Merstham, who gained first prize, showing a very even lot of Aviator in the pink of condition. The flower is of medium size and of intense deep scarlet. Mr. H. T. Mason, Hampton Hill, took second with Scarlet Glow, a more brilliant scarlet and larger. The flowers are flatter, however, and two or three had passed middle age. Mr. J. C. Jenner was third with Champion.

Twenty-five blooms, crimson or like shade: Mr. H. T. Mason, Hampton Hill, led the way with his crimson seedling, Warrior, a variety of much merit and distinction. Mr. J. C. Jenner and Messrs. Wade and Sons staged Triumph, and were second and third respectively.

For twenty-five blooms in the fancy Carnation class, Major Sir Randolph Baker, Bart., Blandford, took the leading place with Sunstar, yellow, lightly touched scarlet; Messrs. Wells being second with Mrs. T. A. Weston, apricot with scarlet markings.

Dinner table decoration of Carnations, 8 feet by 4 feet (no cutlery allowed): Five competitors entered, the first prize going to Messrs. R. F. Felton and Sons, Hanover Square, W., who employed vases of Lady Northcliffe, associated with trails of bronze Ivy, Asparagus and sprays of Azara microphylla. Second, Mrs. A. E. Brown, Reigate, who had Salmon Winsor, with Croton leaves, Asparagus and Cyperus; third, Mrs. Alex. Robinson, Carshalton, the same variety being associated with Ivy, Pittosporum, Asparagus and Grasses. All the arrangements were well placed.

SECTION B (GARDENERS AND AMATEURS).

For the Lord Howard de Walden Challenge Cup and a cash prize of £3 as first prize for a semi-circular group of Carnation plants in flower, 25 square feet being allowed, only one competitor, Sir Daniel F. Gooch, Bart., Hylands Park, Chelmsford (gardener, Mr. W. Heath), entered, occupying the corner near the annexe. Well-grown, well-flowered, dwarf, lightly and neatly staged, the perfection of cleanliness and healthy vigour, this admirable lot would have required some beating in any competition, hence merited high praise while standing alone. The varieties were not named, and while a display of names on cardboard might constitute a disfigurement in the case, we certainly think that from the educational point of view a side plant of each variety could be named without detracting from the merit of the group. White, crimson, rose pink and salmon shades were fairly evenly balanced.

For one vase of a British-raised seedling, the Countess of Derby, Sunningdale (gardener, Mr. G. Reed), was first, Sir Randolph Baker, Bart., taking the first prize in the

following class for twelve blooms from a given list of nine American sorts. The variety staged was Pink Perfection, the flowers very fine.

For twelve plants in bloom of three or more varieties of Mr. Engelmann's introduction, the Engelmann Novelty Cup and money prizes were offered, the first prize going to Sir Randolph Baker, Bart., Blandford (gardener, Mr. A. E. Usher), who set up well-dowered Triumph, Sunstar, Lady Northcliffe and Fanny (fancy). Second, Mr. A. H. Hartley, Ridgmead, Englefield Green, who had Sunstar, Harlequin, Triumph, Carola and Pioneer. The third prize was awarded to very poor examples staged by Mr. W. Heath, gardener to Sir Daniel F. Gooch, Bart., Chelmsford.

For five blooms of Enchantress, Lady Meyer, R. F. Felton or like shade, eight competitors staged, Mr. G. J. C. Harter, The Grotto, Reading, being first with R. F. Felton; Mr. G. Lloyd Wigg, showing Enchantress Supreme finely and taking second prize.

Eleven exhibitors staged in a like class, where Baroness de Brien, Lady Northcliffe and other colours akin were the selected varieties. First, the Countess of Derby, Sunningdale (gardener, Mr. W. J. Reed), who had Baroness de Brien; second, Mr. W. E. Thornber, Burnley; third, Mr. G. J. C. Harter, Reading, the specimens in both being unnamed. In view of Regulation 6 (page 10), that "all flowers in the competitive classes must be plainly and correctly labelled," and, further, that "single vases not so named will be liable to disqualification," we wonder why, in so well contested a class—or, indeed, any class—the regulation was not enforced.

In the Rose Pink Enchantress, Winsor and allied colour shades, five blooms, seven exhibits were staged. Sir Randolph Baker, Bart. (gardener, Mr. Usher), was first with Good Cheer; second, Captain D. Macpherson, R.N., West Coker, Yeovil, who had Rose Pink Enchantress; third, Sir Daniel Gooch, Bart., with the same variety.

Mrs. Mackay Edgar, a pink-flowered British novelty raised by Messrs. Stuart Low and Co., Enfield, was the only variety to which an award of merit was granted. It received 78 points.

NON-COMPETITIVE EXHIBITS.

Mr. A. F. Dutton, Iver, staged a very fine exhibit of the varieties Chelsea (fancy), and Louvain (self red). Mr. George West, Gables Nurseries, Datchet, arranged a floor group of admirably grown examples of Nora West, of lovely salmon pink shade. Mr. J. C. Jenner, Rayleigh, had superb vases of Snowstorm, Lady Northcliffe, Enchantress Supreme, Champion, White Enchantress and others. Messrs. Laxton Brothers, Bedford, contributed well of their British-raised seedling Bedford Belle, a variety of great promise, fragrant, rosy salmon in colour, and of great freedom. The colour is singularly bright and effective. Messrs. Allwood Brothers, Hayward's Heath, arranged a most artistic grouping of the flowers, Mary Allwood and Wivelsfield White being strongly in evidence among many. Messrs. Stuart Low and Co., Enfield, had an excellent lot, in which the certificated Mrs. Mackay Edgar loomed largely, also Matchless and White Wonder, two of the leading whites.

An attractive and extensive exhibit, composed of *Liliums longiflorum* and *speciosum*, *Lily of the Valley*, *Chrysanthemums*, fruit and *Begonia Gloire de Lorraine*, arranged and given chiefly by Mr. W. H. Page, Tangley Park Nursery, Hampton, was presided over by the Misses Page, the Misses Sherwood and Miss Dolly Mason, the proceeds of the sale to be devoted to the Royal Horticultural Society's War Relief Fund. We hope this admirably conceived project received the support it merited.

BOOKS.

The Greenhouse: Its Flowers and Management*—This is one of the many gardening handbooks issued by Messrs. Cassell, and that, too, at a very cheap rate. Its 151 pages are replete with information such as the amateur requires, commencing as it does with the construction of the greenhouse and its heating, following on with plants suitable for that structure and their culture. To the amateur taking up the culture of greenhouse plants this book can be confidently recommended, as the instructions are clear and concise, and greatly helped by the numerous illustrations. A common error of assuming that the amateur knows more than he really does is altogether avoided. The book shows evidence of care in its compilation, but a slight slip or two may be pointed out. On page 34 the description of the *Grevillea* applies to *Grevillea robusta*, but, as there are so many other kinds, the specific name should have been given. The *Begonia* on page 44 should read "*weltoniensis*," not "*meltoniensis*," while exception may be taken to *Geonoma gracilis* as one of the most accommodating of Palms.

* "The Greenhouse: Its Flowers and Management," by H. H. Thomas. Cassell and Co., Limited, La Belle Sauvage, E.C.; price 1s.

THE GARDEN.

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DECEMBER 25, 1915.

NOTES OF THE WEEK.

To Our Readers.—With this issue we bring to a close Vol. LXXIX. of THE GARDEN, and we take this opportunity of expressing our warm thanks and appreciation to the many contributors who help to make our pages interesting and replete with practical suggestions. THE GARDEN is singularly fortunate in numbering among its contributors the leading horticultural authorities in the land. Our contributors include Edwin Beckett, V.M.H., George Bunyard, V.M.H., E. Molyneux and Owen Thomas, V.M.H., experts on fruits and vegetables; Miss Jekyll, S. Arnott, W. Irving and E. H. Jenkins on border flowers and rock plants; W. Easlea and Herbert E. Molyneux on Roses; the Rev. Joseph Jacob, who writes exclusively for THE GARDEN on Tulips, Daffodils and kindred subjects; Sir Herbert Maxwell on Lilies; and W. J. Bean, W. Dallimore and Dr. W. Botting Hemsley, F.R.S., on trees and shrubs. Among those who have expressed their willingness to contribute occasional articles in coming numbers are Miss E. Willmott, V.M.H., J. T. Bennett-Poë, V.M.H., E. A. Bowles, F.L.S., E. A. Bunyard, F.L.S., F. Herbert Chapman, F. J. Chittenden, F.L.S., the Rev. G. H. Engleheart, V.M.H., James Hudson, V.M.H., E. Mawley, V.M.H., and Charles E. Shea, V.M.H. In the New Year, Mr. George Dillistone will commence a new and helpful series of articles on how to lay out a garden; and Mr. W. F. Rowles will start a series of useful articles on the greenhouse for food supply. A general index, together with a title-page and frontispiece suitable for binding all the numbers published during 1915, is presented with this issue. Next week we shall publish our Special New Year Number; and as there is always a large demand for the New Year issue, we advise readers to order their copies well in advance.

The Gardens of Lowther Castle.—We are indebted to the Earl of Lonsdale for kindly sending the illustrations to accompany the Rev. David R. Williamson's description of the gardens of Lowther Castle which appears in the pages of this issue.

The Late W. Atlee Burpee.—The Rev. David R. Williamson writes from Kirk House, Kirkmaiden, N.B., on December 18: "I have been greatly grieved on hearing the sad news of the death of that supremely gifted horticulturist, Mr. W. Atlee Burpee of Philadelphia, who was my kindest American friend. How I will miss

the singularly fascinating letters regarding the latest and loveliest varieties of the Ipomœas and Sweet Peas he used regularly to write me at this season of the year! His outward form has vanished for ever, but his influence remains, a never-dying grace, an ineffaceable possession, to inspire us still."

Home-Grown Timber Committee.—The President of the Board of Agriculture and Fisheries

Government purposes. All communications for the committee should be addressed to the Secretary, Home-grown Timber Committee, Craven House, Northumberland Avenue, W.C.

The Aubergine or Egg Plant.—By many the Aubergine is regarded as an article of food. Even where its merits in this respect are not appreciated, it forms a decidedly ornamental feature in the greenhouse, the fruits retaining their brightness for a considerable time, which is a great point in favour of the Egg Plant, as it is popularly termed. The two commonest forms are the white and purple, while different intermediate shades occur among them. The most effective is the white-fruited form, as in its clear milk-like tone of colour it stands out quite distinct from any other berried or fruiting plant in the greenhouse. It is a member of the great Solanum family, the botanical name being Solanum Melongena. All that is necessary in its cultivation is to sow the seed in gentle heat in spring, and pot on the young plants, when required, in good soil, giving them much the same treatment as Tomato plants. Fruiting examples may be grown in 5-inch, 6-inch or 7-inch pots.

A Beautiful Golden Cypress.—Cupressus or Retinospora obtusa var. Crippsii is one of the most distinct and pleasing yellow-leaved conifers cultivated in our gardens. Attractive at all seasons of the year, it is especially prominent and valuable at the present time. A tree of moderate dimensions, Cripps' Golden Cypress is worth planting as a lawn specimen even in comparatively small gardens, and in groups for extensive pleasure grounds or wide shrubbery borders. Cuttings provide a ready method of propagation.

Cotoneaster rotundifolia.—First introduced from the Himalayas nearly a hundred years ago, this Cotoneaster is one of the four best species cultivated in our gardens. The bright red fruits remain on the bushes until February or March untouched by the birds. It is a shrub 4 feet to 6 feet high, occasionally more, and though not strictly evergreen, many leaves persist through the winter, and only seem to disappear with the development of young leaves in spring. At Kew just now a bed of about a dozen plants near the Orchid Houses is very effective, particularly when the branches are glistening in the sun.



THE AUBERGINE OR EGG PLANT. THE ATTRACTIVE FRUITS ARE PALATABLE WHEN FRIED.

has appointed a committee for the purpose of making such arrangements as are likely to ensure the fullest use being made of native resources in supplying existing demands for timber. The committee are prepared to purchase standing timber and to make arrangements where necessary for felling, hauling and conversion; they will be glad to receive particulars of timber which landowners and others would be willing to sell for

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Magenta Flowers.—May I add two names to the list of magenta flowers given by Mr. Clarence Elliott in reply to "Magenta's" query? *Lathyrus Sibthorpii* blooms early, and is a really bright and delicate shade of this generally unpleasing colour; and a variety of *Primula ciliata* has the most brilliant magenta flowers, noticeable from a good distance, and quite the best, in my mind, of the colour. I would not call *P. pulverulenta* magenta at all. It should surely be classed as crimson.—H. M. B.

A Pretty Combination.—There is a raised mound for Yuccas with three courses of dry walling next the path. At the top of this, and running in 2 feet or 3 feet till the smaller Yuccas are reached, there is first a planting of *Heliotrope* and then one of *Ivy Geranium Mme. Crousse*. The latter is planted rather thinly, and is carpeted and front-edged with *Sweet Alyssum*, which is also sown in the joints of the dry walling. The pink and white, following the purple, has such a charming effect that it may be confidently recommended; indeed, in any place where the useful *Ivy Geranium Mme. Crousse* is employed, the addition of the *Sweet Alyssum* will be found desirable.—G. JEKILL.

Daffodils in December.—It sounds early to be having Daffodils in flower in mid-December, but thereby hangs a little story. Some years ago I made some crosses between *Tenby* (*obvallaris*) and *pallidus præcox*. Some of these have grown into little stocks, and being of small or no commercial value, we potted some of them up this year and plunged them outside in fibre early in September. In November they were brought into a house kept at about 60°, and the first flowers opened on December 15, so that from now till next May we shall not be without Daffodils. An essential which should never be forgotten when getting these early forced flowers is to keep the plants constantly sprayed, otherwise most of the buds will go blind.—F. HERBERT CHAPMAN.

Origin of the Name Traveller's Joy.—*A propos* the notes and illustration on *Traveller's Joy* (*Clematis Vitalba*) as a wayside plant, issue December 4, page 592, the origin of the name *Traveller's Joy* can be traced to Gerrard, as may be seen from the following quotation, taken some years ago from an old herbal which I have since lost sight of. Because of its "decking and adorning the ways and hedges where people travel," says Gerard, "I have named it the *Traveller's Joy*." Verily, no plant could have been more appropriately named than the subject now adding beauty and interest to our lanes and hedgerows by virtue of its downy fruits.—HURSTGATE.

Borecole Injured by Frost.—Many plants of Borecole, or Kale—Dwarf Green Curled variety—have suffered much from the hard frosts which we have had almost continuously since November 11. The young leaves are yellowish brown

round the edges, and even many of the older leaves are similarly affected. A number of the plant stems and leaf-stalks are also bleached in appearance. In fact, some of the plants are lying over, while others will be of no use. The most forward plants appear to have suffered most.

DAVID ARMSTRONG, *Kirknewton, Midlothian*.

***Buddleia globosa*.**—This is one of the prettiest of shrubs, with its tongued, soft green leaves and orange ball flowers. It is very easy to grow, as it strikes readily from cuttings inserted in the open ground almost at any season of the year. I look on it as a gem among shrubs, and would class it with *Choisya ternata* and *Cytisus andreas*. It is more familiarly known as the Orange Ball Tree, and came originally from the plains and mountains of Chile. It is much grown here in the North of Ireland, and its flowers are locally named King William's Buttons. It is best planted in shelter, as its roothold is not very secure, giving easily in high winds. There are other varieties, but I like this one best.—WALTER SMYTH, *Holywood, County Down*.



FLOWERS OF THE ORANGE BALL TREE (*BUDDLEIA GLOBOSA*).

Rose Rayon d'Or.—This beautiful Rose has a reputation as a poor doer and liable to die back badly in the winter. Lately I sent a photograph of a bed of twelve plants of this variety to the raiser, M. Pernet-Ducher, who expressed himself as much surprised at the vigour of the plants, which are 3 feet high. Since they were planted in 1912 they have been a mass of bloom nearly the whole summer each year. I hope my experience will encourage others to plant this Rose and not be put off by a reputation which is quite undeserved. I am afraid I have no secret to divulge as to the success with *Rayon d'Or*, as my soil is pure sand. The bed was taken out about 3 feet and filled in with a mixture of strong clay, loam and leaf-soil, well turned over together. Of course, strong plants must be procured. I prune hard and, when the plants are established, manure liberally with Voss' Special Rose Manure, generally giving three applications in the season, February, April and July, but not too much at a time. Before planting a bed I tried two plants for

a season, putting them among the other Roses in the Rose garden in a less strong soil; they did equally well as in the bed. My plants are in a sheltered position and full sun all day. In September of this year I returned home to find the Rose garden practically leafless, and the Roses wrecked by mildew and black spot, except *Rayon d'Or*, which unharmed by either, was a mass of lovely blooms, almost as yellow as Buttercups.—C. G. O. BOND, *Churt, Surrey*.

***Lilium giganteum*.**—My offer to send seed of this Lily has brought me exceedingly numerous requests for the same, all of which I hope to fulfil in the course of a few days. But it is quite out of my power to reply severally to those who ask for cultural instruction. Perhaps they will allow me to reply briefly through *THE GARDEN* to their enquiries. The seeds should be sown at once in boxes filled with a compost of loam, sand and peat or leaf-mould in equal proportions, and lightly covered with sand and pulverised leaf-mould. No lime should be used at any period of growth. The boxes should be kept in a cold

frame or cool greenhouse through the winter, keeping the soil moist, but not wet. Some seeds will probably germinate next spring; the majority not till the second year. So soon as the seedlings are fit to handle, having small bulbs, they may be pricked out in the open, but not exposed to scorching sun. In cold districts a screen of branches or matting should be laid over them in winter. In proportion as the bulbs increase in size, the soil should be enriched with well-rotted manure. When they approach the flowering stage, which will be in their sixth to eighth year, it is hardly possible to treat them too generously. If the staple diet is deep peaty loam, the Lily will respond gratefully to strong food. In planting out for permanence, choose a place sheltered from rough winds, in partial shade (not overhead), and set the bulbs with the pointed top only just underground. The bulb perishes after flowering, but not before producing numerous offsets. Allow me to thank some of my correspondents for their

kind gifts of various seeds in exchange.—HERBERT MAXWELL, *Monreith*.

The Strawberry Tree (*Arbutus Unedo*).—This most attractive evergreen shrub, *Arbutus Unedo*, is said to be indigenous to the southern climes of Europe, the region of a cruel war. The locally named Strawberry Tree is known to grow luxuriantly in England and Wales; and where protected from cold, deteriorating draughts the plant forms an admirable addition to the shrubberies of even some Lancashire gardens. While in its gayness of fruit and flower, specimens of this curious plant came as a botanical favour to certain Ashtonians in Lancashire from the mountainous grounds of an Ashton lady, at times resident in Abergele, North Wales; but the plant is fairly well cultivated around Manchester. *Arbutus Unedo* is classified in the Natural Order Ericaceæ, thus is a kindred plant to our mountain, low-lying plants, such as the Bearberry, Cranberry, and *Arctostaphylos Uva-ursi*, a familiar diuretic with herbalists;

but, while these latter plants grow shrubby and low on the hillsides, the *Arbutus* sometimes develops into a fine tree, from 8 feet to 10 feet high, in varied plantations. The close character of the surrounding branches seems to increase by a dichotomous or furcate growth. [The same characteristic is noticeable in *Arbutus Menziesii*; see accompanying illustration.—ED.] As may be noticed in a complete specimen, the former year's branches, perhaps now retaining the berries, may also during the second season have grown two opposite branchlets, each bearing a raceme or pendant of pinky white flowers, which, again, by the following autumn will have developed a number of red, Strawberry-like berries. Thus, by the time the berries have attained their scarlet colour, the secondary side branches are also in beautiful flower, and in drooping whiteness are awaiting fertilisation.

Darwin Tulip Elephant.—I never omit to read the Rev. Joseph Jacob's interesting articles in your valuable paper, and so I saw him use my name in much too flattering terms. Happily, I am now able to assist him. Oliphant is the Dutch equivalent for Elephant, and so I think Dutch people, when issuing English catalogues, should write Elephant instead of Oliphant, as well as Queen of the Netherlands instead of *Köningin der Nederlanden*.—JAN ROES, *Heemstede, Holland*.

The Four Best Dessert Apples.—I read with interest the article appearing in the issue of November 31 on "The Four Best Dessert Apples." If I were planting only four trees, I certainly should not omit James Grieve. It is a most beautiful Apple, and I consider everyone should include it if possible. It is a splendid cropper, and the Apples are of good size. I came across a nursery catalogue the other day in which this variety was not even listed; why, I cannot understand. In my opinion it is unsurpassed in its season.—E. A., *Thornhill, Copmanthorpe, York*.

Eucalyptus globulus Planted Out in a Cool Conservatory.—Except in a young state, this vigorous tree does not usually look very happy when grown in a pot, but a few years ago I stumbled upon a success with it planted out in a cool conservatory here. Two plants in 6-inch pots were, along with some Palms, *Dracænas*, &c., stood on the surface of a bed in the centre of the house. The bed entirely consists of rough shingle, overlaid with a thin layer of clean sea gravel. After some time it was evident from the vigorous top growth that the Blue Gums were rooting into the bed. Left undisturbed, they grew rapidly, and in less than a year they burst their pots, and were then at the roof of the house fully 12 feet high. After using the young shoots for filling large vases during the winter, the trees were sawn over in the spring about 4 feet from the floor, and this is carried out annually and gives great satisfaction. In the cut state the lovely glaucous grey, health-giving shoots last quite a fortnight.—CHARLES COMFORT, *Broomfield Gardens, Midlothian*.

English v. Latin Plant Names.—Mr. Murray Hornibrook, in the issue of November 27, discusses on the right topic at the right time, and I

heartily agree with every word he says on the subject. I have seen catalogues compiled in the way he describes, also advertisements in some of the gardening papers offering plants, giving only the "English" and not the botanical names. This matter is serious on account of the confusion that will arise if the system is carried out too far; it wants nipping in the bud and stopping at once. Surely amateurs can be persuaded that the Latin names are essential and not difficult; surely they can be persuaded not to buy plants offered in the "English" names only. If they cannot, they will lay themselves open to have all sorts of undesirable plants under "enticing" English names.—E. T. ELLIS, *Weetwood, Ecclesall, Sheffield*.

Apple Lane's Prince Albert.—Among thirty varieties grown in my garden for twelve years, this has been the most regular cropper, only failing once, in a very unfavourable season, and

CHRISTMAS ROSES.

(HELLEBORES.)

AT several of the recent exhibitions the pearly white Christmas Rose, the fairest flower of winter, has been shown in many varieties; and these little displays of one of the hardiest of perennial plants remind us of the scarcity of Hellebores in English gardens. We wish the pretty way of planting the Christmas Roses in the Royal Gardens, Kew, were more adopted. There they are among Ferns on the fringe of woodland, and peer up from the foliage a mantle of white for several weeks. Snow seems to have fallen on this woodland, and the brown Fern fronds afford some protection. Winter in the country is not the depressing season so frequently depicted, and on many days, with the sun



ARBUTUS MENZIESII SHOWING DICHOTOMOUS BRANCHING.

even then having a few fruits, when other kinds were bare. If I could have but one Apple tree, I would choose Lane's as the best cropping, cooking and keeping, all round variety, and also as one having particularly beautiful blossom. Though I commend Lane's thus highly, I do not use it for my mincemeat. The Apple we used was one growing in the dear old Surbiton garden, a small lemon-coloured one, with tiny black dots on its thin, tough skin. It was very hard and sour, and I do not know its name.—ANNE AMATEUR.

An Excellent Melon.—Several years since I recommended readers of THE GARDEN to try the variety Triumph. For growing in pits we still find this Melon a most reliable sort. The plants are vigorous, the fruit sets freely, and the flavour is pronounced excellent. We find this variety gives more satisfaction than the popular Hero of Lockinge or Ringleader. This Melon is bound to become increasingly popular.—COLIN RUSE.

shining brightly, the Christmas Roses have lifted up their white petals to catch every ray. The plants at Kew are growing in ordinary sandy loam, without any manure, and the only assistance they derive is from the top-dressing of decayed leaves used for the Ferns among which the Christmas Roses are growing. Shaded on the east and south by trees, the sun only shines upon them during the afternoon and evening. One point of importance that should be noticed by those who have not had much success with this flower of winter is the moisture the plants receive during the summer months. The Ferns are frequently watered, and the moist soil is favourable to the Hellebores. One is apt to forget during the rest of the year the plants which flower in winter and spring, although it is during the summer that water and mulching are desirable. A well-known grower of Hellebores writes: "Their chief requirements are shade during the hottest part of the day, deep culture in rich, loamy soil,

and liberal supplies of water during the growing period."

There are many varieties, differing considerably in the size of both flower and leaf, some retaining their foliage much better than others. The most popular form is known as *Helleborus niger* (the botanical name of the Christmas Rose) *altifolius*; it is also called *major* and *maximus*, and has large buds and white flowers shaded with red; these are 4 inches to 5 inches across. Another distinct and pretty form is *angustifolius*, which has smaller flowers than *altifolius*, and of the purest white; while *Mme. Foucarde*, the *Riverston* and *St. Brigid* are all beautiful. *Mme. Foucarde* is valuable for its late flowering. Nothing is more delightful on the Christmas dinner-table than this lovely flower, so appropriate to the season; but we never trust to the outdoor plants for supplying this decoration. The flowers, even under the happy conditions in which the plants are placed at Kew, are frequently sullied by wind

latifolia and *Ranunculus aconitifolius* fl.-pl., better known as *Fair Maids of France*. Then, again, *Rudbeckia Newmani* makes a handsome display when grown in a bed by itself. It never fails to flower with great freedom, its rich orange yellow florets contrasting well with the velvety black purple disc that gives to the genus the popular name of *Cone-flowers*. In a moderately rich light and well-drained soil this hardy perennial which may be planted now, is one of the easiest plants to grow. *Rudbeckia Newmani*, like many another beautiful garden flower, has had the misfortune to bear other botanical names. It is synonymous with *R. speciosa*, and has also been called *Obeliscaria speciosa*.

PARSLEY IN WINTER.

A good healthy batch of Parsley in winter is always greatly appreciated, but sometimes all

the soil must be loosened on the surface and a dressing of gritty soil and leaf-soil put on nearly 2 inches deep. The old plants, so treated, will withstand an ordinary winter without any protection. If plants are to be lifted and replanted in frames, those raised last spring are the best for the purpose. Use a garden fork when lifting the roots, so as to preserve them; trim off the outer leaves and replant in a bed of soil 1 foot deep, making the soil firm. Remove the glass lights in fine weather.

G. G.

SOME SOURCES OF FLOWER FRAGRANCE.

I SUPPOSE no garden-lover would deny that the most precious attribute of a flower is fragrance, and, that being so, the question which naturally arises in the mind is, do we make enough of it, or are we content to accept it as and when it comes? In certain walks of life we are bidden to embrace opportunities; in gardening we may do worse than seek out all plants endowed with fragrance, be it of leaf or stem or flower. In this connection and in these days of specialisation when certain parts are given up to the "wild garden," the "blue" and "white" garden, and others full of costly, if meaningless statuary, or the too frequent evidence of the barber-gardener, one is tempted to urge the claims of the fragrant garden, a spot to which only sweet-smelling things should be admitted. Less attractive than some, and devoid of garishness, such a garden would be full of interest at all times, while the variety alone that would be admissible would probably surprise even those who set out to establish it.

Such a garden, indeed, may have its beginning with the *Winter Sweet* (*Chimonanthus fragrans*) and may finish with the *Winter Heliotrope* (*Petasites fragrans*), which often, by the way, join forces. Between these the way might well be strewn with *Wallflower*, *Rocket*, *Sweet Sultan*, *Violets*, *Mezereon*, *Sweet Bay*, *Stocks*, *Mignonette*, *Tobacco*, *Night-scented Stocks*, *Lemon Verbena*, *Sweet Briar*, *Lavender*, *Rosemary*, *Balm*, *Lilac*, *Pennyroyal*, *Thyme*, *Honeysuckle* and *Lily of the Valley*, to say nothing of the nobler flowers of the garden, *Lilies* and *Magnolias*, and the modern race of *Hybrid Tea Roses*, which, by reason of its variety and continuity, takes precedence of them all. Just how much of this fragrance it is possible to have in any one garden is not unnaturally very much a question of ways and



A BEAUTIFUL BED OF RUDBECKIA NEWMANI IN LATE SUMMER.

and rain. We therefore lift a certain number of clumps when the buds are showing, and put two together, or, if very large, only one, in a bushel basket filled with light, loamy soil. They are then taken to a warm greenhouse, and it is astonishing how quickly the buds develop, opening out as pure as snow. It is a simple matter to force—if we may so call it—the Christmas Rose, and *altifolius* is the best variety for the purpose.

RUDBECKIA NEWMANI.

THE orange-flowered *Rudbeckia Newmani* and the deep rose *R. purpurea* are good summer and autumnal flowers. They look exceedingly pretty in the hardy flower border mingled with *Scabiosa caucasica*, valuable for its porcelain blue flowers; the Californian *Romneya Coulteri*, with deliciously fragrant, flimsy white flowers and central boss of golden anthers; *Globe-flowers* (*Trollius*), *Statice*

efforts on the part of the cultivator fail to ensure a nice crop of leaves. In certain plots it will grow, while in others in the same garden it will fail. The reasons for the failure in such circumstances are entirely local. The following hints, however, will be useful to those who wish to have Parsley throughout the winter. Very young plants often fail, while those raised not later than last May will succeed. If young plants only are now available, they must be thinned out severely that is, to 9 inches apart. When allowed to grow in a very crowded condition and get wet and frozen alternately, they damp off wholesale. The leaf-stalks of the plants that have been thinned out are shorter and much stronger, and withstand severe weather very well indeed. Where old plants only are available for winter use, the outer leaves should now be stripped off—not cut, leaving the stumps of the stems—and only the central leaves. Between the rows of plants

means, and, of course, but a fragment of the sweet-smelling things of the earth is contained in the foregoing list. So great is the variety, indeed, that in treating of this subject one could but touch on the more important things in the hope that, by directing attention thereto, the wealth of material existing might receive more adequate attention.

Sweet Violets.—Of the flowers of the moment, and such as afford a plenitude and succession through many weary months, no easily grown hardy flower is more precious than the Violet, albeit few are more indifferently cultivated. The reason is not far to seek. Violets in rich soils and shady places make luxurious leaf growth and, spreading freely, afford the unthinking gardener an excess of material which does not make for good. To divide big clumps of these after flowering is easy enough, though infinitely superior results are the outcome of securing the unflowered runners as cuttings during the autumn months. Such as these, rooted and planted out in April in moderately rich soil and in places not too shaded; make the finer crowns for winter flowering because favoured with greater vitality and youthfulness as compared with the somewhat exhausted examples that have done a season's work.

Lavender, Southernwood and Rosemary.—Walks or borderings may all be planted now, employing preferably youthful examples of a year or two old, raised from cuttings. Culturally it is well to remember that the Lavender is a lime-loving subject, and while lime is by no means essential to its existence, it is certainly benefited by its presence. There are several varieties, and in addition to that usually grown and its white-flowered form, mention should be made of the Munstead variety and others known as nana or compacta, any of which are suitable for gardens of limited size. Among Lilies which might well be planted, none merits more attention than the

Madonna Lily, which for generations has graced many a cottage garden. Purest of its tribe, it is also one of the most fragrant, a fragrance that can be endured. Lover of rather poor soil and suited to the warmer, sunnier places of the garden, it is unlike not a few of its race, which possess a preference for cool and shade. When planting it in the garden, good effects may be secured by grouping it in the forefront of sombre-leaved evergreens, as Yew or Holly, the association mirroring the twain into fuller life and beauty than would be possible otherwise. *Lilium odorum*, *Brownii* and *regale*, all members of the trumpet section of Lilies, are other fragrant sorts that might be planted, with, as soon as they come to hand, the golden-rayed Hill Lily of Japan (*L. auratum*) and its variety *platyphyllum*. Powerfully fragrant, these should be reserved for the outdoor garden, where, associated with low-growing shrubs—valuable as a protection against spring frosts and of not a little service by reason of root companionship—they not infrequently do well. These latter are of the stem-rooting class of Lilies, and should be planted at least 6 inches deep and given fairly rich soil. Quite one of the most charming of fragrant plants of a bulbous character is the

Gardenia-scented Narcissus (*N. Poeticus fl.-pl.*), much less grown than it should be, because it is prone to so-called "blindness." This, however, is chiefly due to a cultural error—a

lack of knowledge as to its requirements. Impatient of root disturbance at all times, it is a mistake to plant it in shallow soils or those of a sandy or dry, hot nature. In cool, moist or even wet loam—I have been most successful with it even as a subaquatic, where the root fibres were in touch with moisture at all times—"blindness," so called, is practically unknown. By growing it under these or like conditions, inserting the

particularly good this autumn, and Hugh Dickson likewise. Then, in any select list, such as Queen of Fragrance, Mrs. George Norwood, Lady Alice Stanley, Laurent Carle, George Dickson, Earl of Gosford, Alexander Hill Gray and Mrs. E. Powell (rich velvety crimson) should be included by reason of fragrance alone, though naturally they constitute but a fragment of a far greater whole. There are garden Pinks that grow like



MADONNA LILY AND ROSE HELENE IN A BORDER OF FRAGRANCE.

bulbs 6 inches or 8 inches deep and letting it alone, it will give, when established, a plenitude of pure white, fragrant flowers in late spring that will repay the little trouble involved.

And then there are the Hybrid Tea and other Roses—most precious of fragrant-flowered plants—galore, and of greater value because of their constancy and the richer garb they assume in favourable seasons. Lady Hillingdon has been

weeds, but which deserve well at the hand of the gardener for the precious attribute we have in mind; Bergamot, and other things; while such subjects as Thyme and that inimitable carpeter, *Mentha Requienii*, may, with others, be reserved for those favouring paved walks or the like, where the least movement or friction will set at liberty that in which all garden-lovers delight—fragrance of a unique kind. E. H. JENKINS.

THE GARDENS OF LOWTHER CASTLE.

By THE REV. DAVID R. WILLIAMSON.

DURING a recent visit to the English Lakes I walked from Penrith to Lowther Castle, the famous residence of the Earl of Lonsdale in Westmorland, to see for the first time the spacious gardens there.

I had a memorably cordial reception from the highly capable and accomplished head-gardener, Mr. James Jeffrey, whose kindness and courteous attention on this special occasion I will not soon forget. His father, I may here state, incidentally, superintends the gardens at St. Mary's Isle, Kirkcudbright; and his brother, those of Sir R. Buchanan Jardine at Castlemilk in Dumfriesshire; so it may be inferred that his is an intensely horticultural family. I would require—as I frankly told Mr. Jeffrey—to visit the Lowther Castle gardens many times and study them very attentively, with adequate appreciation of their widely varied floral, arboricultural, and pomological attractiveness, before I could dream of exhausting such a rarely comprehensive subject. There can be no question that in their gradual evolution (or artistic development) the Earl of Lonsdale, recognising their possibilities, has spared no expense. His Lordship, while quite naturally—and hereditarily—devoted to healthful, energising sport, has a warm region in his wide and generous heart for beautiful trees, especially when they are of historic interest; and a fine avenue of Yews, on the confines of the gardens, is one of his favourite haunts. He is pardonably proud of being their possessor; for like those which I have seen at Craigmillar and Rosslyn Castles in Scotland, they have every appearance of being centuries old. On every side environing his magnificent castle—in happier times much visited by the Kaiser of Germany—are stately woods (once immense forests frequented by wild horses) embracing many majestic trees, especially Oaks, and Elms and wide-spreading Sycamores, radiant, at the period of my visit, with rainbow hues. Mrs. Hemans' ideal of the "Stately Homes of England," so musically embodied in one of her finest poems, is idealised here.

"The deer across the greensward bound,
Through shade, and sunny gleam;
And the swan glides past them, with the sound
Of some rejoicing stream."

The silvery sounding of chimes from the great castle every quarter of an hour comes, ever and anon, like distant music amid the silent woodlands to the raptured consciousness of the lover of Nature, who cannot be less than inspired, like Wordsworth or Mrs. Hemans, with such a scene. The cannon that seem to frown around the battlements and terraces only emphasise the

conception—even in the present period of agonising war—that this is a region of perpetual peace.

I visited Lowther Castle gardens in the middle of October—that sunset of the year—saddening with all its glorious, transitory, autumnal hues; much too late for the vast majority of its myriad displays of infinitely varied flowers. On the herbaceous borders they had for the most part disappeared for a period of silent, yet earnest preparation, the subtle, mysterious process of



AN AVENUE OF BEECHES IN THE BEAUTIFULLY WOODED GARDENS OF LOWTHER CASTLE.

root production, till they are touched into wondrous energy next summer by the great annual resurrection. But in the conservatories there were many exquisitely lovely Gardenias, supreme favourites of Lord and Lady Lonsdale; golden-hued Allamandas; radiant Orchids, the aristocracy of flowers; and fragrant Carnations, reminiscent of the original Malmaisons, which can no more become superfluous than such Roses as *Devoniensis*, *La France*, *Maréchal Niel* and its richly endowed derivatives; or the venerable and much-loved *Gloire de Dijon*. Very fascinating were the Iris and Japanese garden; show much more impressive, then, had I only seen them in their virginal, luxuriant bloom! There was a grand exhibition of early flowering Chrysanthemums; and the marvellous multitude of glowing,

embryonic flower-buds visible in the conservatories—the peculiar glories of winter—indicated a more radiant revelation yet to come.

Lowther Castle, with its gracious gardens and its majestic environment of noble woodlands and floral terraces, will long abide, like inspiration, in the regions of memory.

OUR NATIVE TREES AND THEIR CONGENERS.—IV.

By W. BOTTING HEMSLEY, LL.D., F.R.S., V.M.H.

The Bird Cherry, Blackthorn, Bullace Cherry and Plum (*Prunus*).—The subfamilies Prunoideæ

and Pomoideæ of the Rosaceæ include nearly all of our most important hardy fruit trees, and some of these now exist in a wild condition nearly all over the kingdom; but most of these are probably descendants of escapes from cultivation. To the first of these subfamilies belong, in addition to those named above, the Peach and Apricot, the common and Portugal Laurels, &c. The fruit of these is distinguished from that of the Pomoideæ by having no "eye" at the apex, such as the Apple has, for example. *Prunus* is a very large genus, comprising probably 200 species, of which upwards of sixty inhabit China, the majority of these being peculiar to that country. The genus is scattered all round the Northern Hemisphere, chiefly in temperate and subtropical regions, and in America it ranges from Canada through the mountains of Mexico and Central America to the Andes. It is apparently absent from Tropical and South Africa, Australasia, and Polynesia, where also no closely allied members of the subfamily exist. The Gean (*Prunus Avium*), the Bird Cherry (*P. Padus*) and the Blackthorn or Sloe (*P. spinosa*) are generally considered to be true natives of this country.

The Crab (*Pyrus*).—The Apple, Pear, Mountain Ash or Rowan Tree, Wild Service, &c., are members of the genus *Pyrus*, and some botanists consider the Quince (*Cydonia*) and the Medlar (*Mespilus*) as congeners. Altogether about seventy species

of *Pyrus* are on record. They are almost confined to the north temperate and sub-arctic zones. Few species inhabit America, none reaching so far south as Mexico. The greatest concentration of species is in Eastern Asia, which is the home of most of the ornamental and some of the useful kinds.

The Hawthorn or Whitethorn (*Crataegus*).—*Crataegus* is confined to the north temperate regions, the southern limit being the mountains of Colombia, where one species, at least, has been collected. *C. stipulosa* has, however, been recorded from Mexico, Guatemala and Peru. The genus is spread all round the Northern Hemisphere, and is most numerous in North America, the number of species having been variously estimated at thirty to fifty. But of

late years several American botanists have made a special study of the North American species and multiplied the number to about a thousand. *Cratægus*, like *Rubus*, is very plastic, and the majority of these species are highly critical. The *Pomoideæ* are exceedingly rare in the Southern Hemisphere; but there is an Andine genus, *Osteomeles*, closely allied to *Cratægus*, of one (or perhaps more) species, *O. anthyllidifolia*, which ranges from China and Japan eastwards, across the Pacific, to Hawaii, Pitcairn, Mangaia and other remote islands. This species is not Andine, and its remarkable distribution may be due to birds, oceanic currents or indirect human agency.

The Spindle Tree (*Euonymus*).—The sole British representative of the genus *Euonymus*, *E. europæus*, is only exceptionally met with as a small tree; but its brilliantly coloured capsule and seed render it a conspicuous object in hedges and copses in autumn, and its beautiful evergreen congener, *E. japonicus*, lends it a claim to be included in this place. *Euonymus* numbers probably nearly a hundred species, whereof about sixty inhabit China and Japan. Our indigenous species is widely spread in Europe, and extends to North Africa and West Siberia. A few species are native in North America southward to Mexico and Nicaragua. The genus is more numerous represented in the mountains of India; a few species occur in the Malayan Peninsula, and one exists in Queensland, Australia. *Celastraceæ*, the family to which the genus *Euonymus* belongs, consists of at least 450 species of shrubs and trees scattered over the most widely distant tropical, subtropical and temperate regions.

The Lime (*Tilia*).—*Tilia* is restricted to the Northern Hemisphere, by recent species, in a natural state. Three species occur wild in England, but it is doubtful whether any species is really indigenous. *T. parvifolia* is found in old woods, and may have reached this country independently of human agency. At least twenty species of *Tilia* are now known, a dozen of these inhabiting China and Japan. The genus is scattered over the temperate regions of Europe, Asia and North America, one or more species occurring in the mountains of Mexico, within the Tropics. So far, it appears no species of *Tilia* has been discovered in Formosa. The family *Tiliaceæ* comprises a considerable number of genera and 350 to 400 species, mostly natives of warm and tropical countries. None inhabits frigid regions.

The Maple (*Acer*).—*Acer campestre*, the common Maple, forms a small tree under favourable conditions, and the Sycamore (*A. pseudo-platanus*) is now so widely naturalised in the United Kingdom as to justify the inclusion of the genus in our forest trees. Both are widely spread in Temperate Europe and Western Asia. Upwards of 100 species of *Acer* are on record, recent explorations in China having largely added to the number previously known. They are spread all round the north temperate zone, and most numerous in North America and Eastern Asia. Two species have been collected in North Mexico, and the

genus reaches the Southern Hemisphere in the mountains of Java. There are probably not fewer than fifty species in China and Japan combined. No species is known to exist in Africa south of the Atlas Mountains. The genus *Acer* was formerly referred to the *Sapindaceæ*, but it is now generally given family rank—*Aceraceæ*. *Dipteronia* is a new type of the family native of China.

The Ash (*Fraxinus*).—Between forty and fifty species of *Fraxinus* have been described, about twenty of which are recorded from China and Japan. Many of these are very elegant. The remainder are dispersed all round the rest of the north temperate zone, including North Africa and North Mexico. The Ash belongs to the same family—the *Oleaceæ*—as the Jessamine, Lilac, Privet and Olive.

The Guelder Rose and Wayfaring Tree (*Viburnum*).—*Viburnum Lantana*, the Wayfaring

a dozen species of coarse herbs, shrubs and trees, scattered in the most distant parts of the world, though absent from many countries. The common Elder is widely spread in Europe and North Africa, and it is naturalised in some other countries, including New Zealand, sometimes forming thickets. Two species of *Sambucus* are peculiar to Eastern Australia, one ranging from Queensland to Tasmania. Several species inhabit China, and one of these, *S. javanica*, ranges from Eastern India through the Malayan Peninsula to Java. A species of the affinity of *S. Ebulus* has recently been discovered in the mountains of East Tropical Africa. The genus is also represented in North America and southward through Mexico and the West Indies to the Andes and Eastern South America. *Sambucus* belongs to the *Caprifoliaceæ*, the same family as *Viburnum*.

Exotic Genera.—A few exotic genera of trees are as familiar as, or more so than, some of our



A VIEW OF LOWTHER CASTLE FROM THE FLOWER GARDEN.

Tree, rarely exceeds 20 feet in height, and is oftener seen as a bush; and the Guelder Rose, *V. Opulus*, is usually a bush; but some of the exotic species are of larger dimensions. Both *V. Opulus* and *V. Lantana* extend eastward to China, and the former is also at home in North America. Recent explorations in Western China have resulted in the discovery of between thirty and forty new species of *Viburnum*, bringing the total up to something approaching 150. *Viburnum* ranges all round the north temperate zone, with southern extensions in America to the West Indies, Mexico and Costa Rica to the Andes, and the genus is also represented in Central Madagascar. It belongs to the *Caprifoliaceæ* or Honeysuckle family.

The Elder (*Sambucus*).—*Sambucus nigra*, the common Elder, is not a timber tree; but it has the habit and dimensions of a small tree, and it is a familiar object in the South of England, at least. The genus *Sambucus* comprises about

native trees. Some account of the commonest follow here:

The Plane (*Platanus*).—Two kinds of Plane are not uncommon in cultivation in this country, namely, *P. orientalis* and *P. acerifolia*, the latter being almost exclusively the one planted in town avenues. A third, *P. occidentalis*, a native of North America, is less hardy and exceedingly rare in this country, at least in an adult stage. *P. orientalis* is a native of the Eastern Mediterranean region, eastward to the Himalayas. *P. acerifolia* is supposed to be of artificial origin. Besides *P. occidentalis*, which ranges from Canada to Mexico, on the Atlantic side, there are four other Mexican species. Mexico is the southern limit of *Platanus* and the seat of its greatest concentration of species. Fossil remains of plants, referred to *Platanus*, occur in Europe and Greenland in cretaceous to tertiary formations. This genus is another of those almost exclusively confined to North America and the Mediterranean region.

The Sweet Chestnut (*Castanea*).—As usually limited *Castanea* consists of two species, namely, *C. sativa* (syn. *C. vulgaris*; *C. vesca*), the Sweet Chestnut, and *C. pumila*, a native of South-Eastern North America; but some botanists reunite *Castanopsis* with it, and this comprises some thirty or forty species, perhaps more. The native country (or countries) of *C. sativa* is uncertain, as it has been widely cultivated from early times and many noble examples exist in this country, mostly in parks. Asia Minor has been suggested as its original home; but China seems to have equal claims, and the Sweet Chestnut probably had a wide prehistorical area.

The Horse Chestnut (*Æsculus*).—The genus *Æsculus*, including the North American *Pavia* and the Central American *Billia*, comprises nearly a score of species, most numerous in North and Central America, and one species is found in Colombia, South America. In the Old World, *Æsculus* ranges from South Europe, through Asia Minor, Persia, and the Himalayas to the Malayan Peninsula and China. Until within comparatively recent years, the native country of the Horse Chestnut was uncertain; but it has now been established, apparently beyond question, that it is truly indigenous in North Greece and in the Caucasus.

An Analysis of the foregoing paragraphs reveals the fact that the twenty-three genera of native trees range all round the Northern Hemisphere, across Europe, Asia and America, and, with the exception of *Betula*, *Carpinus* and *Tilia*, also extend to North Africa, at least. Nine of the twenty-three genera reach South America, mostly crossing the Equator. *Quercus*, so abundant in the mountains of Mexico and Central America, is the most notable exception, none apparently being recorded south of Colombia, the so-called Oaks of Chile being Beeches. *Ilex*, *Fagus*, *Euonymus* and *Sambucus* are elements in the Australian flora, and *Fagus* is an important constituent in the forests of New Zealand. And in tertiary times *Quercus*, *Betula*, *Alnus* and *Salix* flourished in Australia; providing always that the fossils have been correctly referred to these genera. In relation to climate, it may be repeated here that different kinds of Willow inhabit regions of the most extreme climatic conditions, from the Tropics to the northern limits of phanerogamic vegetation. A species of Poplar occurs in tropical districts of East Africa, and a large number of different Oaks are characteristic of tropical forests in Eastern Asia. These and other facts point to the former universal distribution of certain successive types of vegetation.

VENTURES IN FRUIT WALLS.

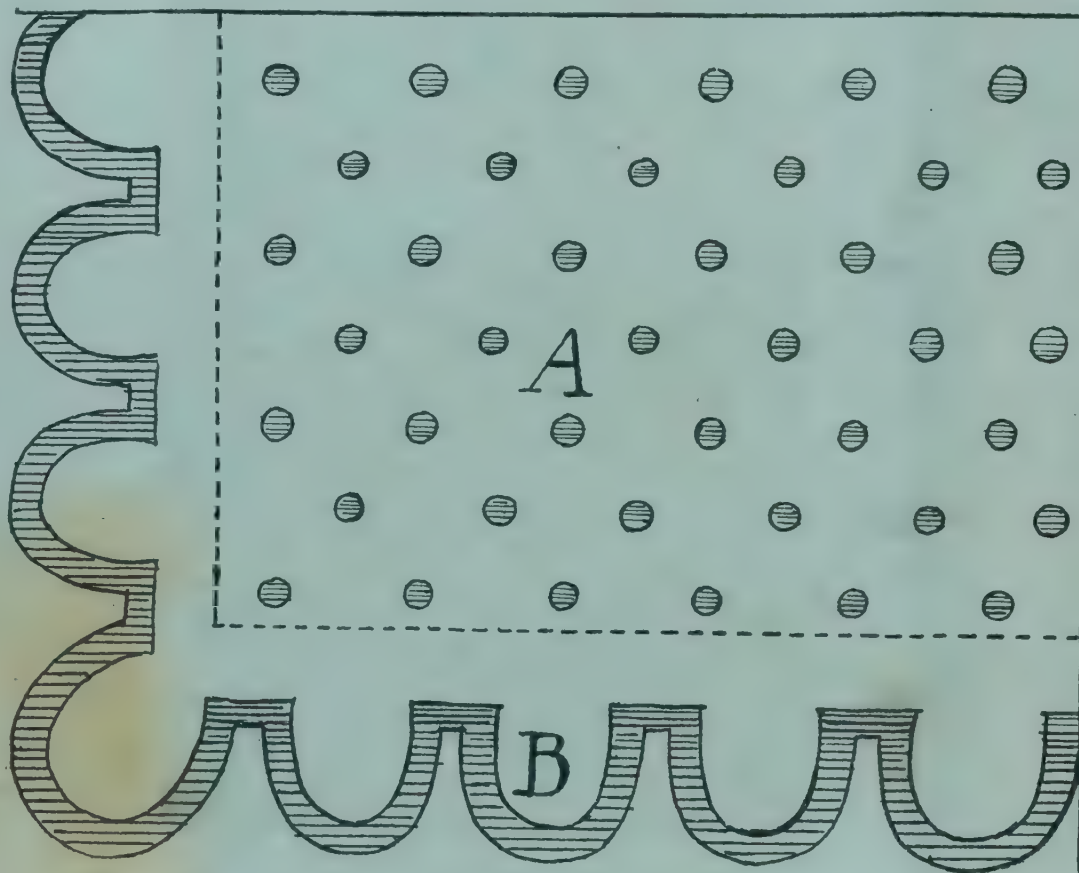
BY THE REV. JOSEPH JACOB.

QUITE recently one of that curious tribe of peripatetic school showmen called on me to prefer the usual request for the use of our day school for an evening entertainment, as he wanted to show a series of war pictures. We had a few minutes' conversation about what was taking place in Europe. Quite casually, as if it were an everyday occurrence, he mentioned certain inventions which he said he had passed on to the powers that be, and he presumed would soon be in daily use. One was a simple method of destroying Zeppelins

the ripening of fruit which in "cold summers" and "difficult years" would not come to perfection; or in the case of Peaches and Apricots, even in normal seasons, would barely ripen at all; is there any way of helping the wall to do its work? Is it feasible by any fairly simple method of construction to make a wall out-wall itself?

Readers of *THE GARDEN* may remember the diagram of an enclosure full of zig-zag lines which appeared in the issue for March 15, 1913, and which represented the foundations of walls which the present owner of Hadham Hall, Herts, found when investigating the cause of the failure of some Apple trees in (as the same enclosure now is) his kitchen garden. It was suggested that it may have been the site of a vineyard. I am unable to find in the old books at my command any direct evidence for or against this view. On the whole I am inclined to doubt its being a vineyard, for

I have never come across any instructions for training Vines, when planted in quantity, in any other way than on poles. In one of the war numbers of *Le Jardin*, an Apricot garden of olden time has been depicted. It consisted of a series of walls built in such a way as to get a maximum of sun. Were the zig-zags at Hadham for Peaches or Apricots, I wonder; or might they have been for Quinces? Sir Hugh Platt, writing in 1600, says: "Quinces growing against a wall, lying open to the sun and defended from cold winds, eat most deliciously. This secret the Lord Darcey brought out of Italy; quare, would this suit all other fruits?" Before the century was far advanced, fruit gardens in contradiction to orchards appear as highly desirable appurtenances



THE SEMI-CIRCULAR FRUIT WALL SUGGESTED BY LANGFORD IN 1681.

by means of a very unstable compound, which would explode with terrific violence on contact with their thin silk covering, but which, with proper precautions, would be perfectly safe for the users. As he explained it, it was all so simple and so efficacious that I ventured to remark that I wondered how it was he was still obliged to go on with his show. He explained that he had given his idea free and gratis to the Government for the good of the country. I collapsed. How many similar simple epoch-making inventions have there been in the past!

Fruit walls have not escaped the sanguine inventor. At various periods and in diverse ways attempts have been made to increase their efficacy. Some of these schemes have had only a butterfly existence, others have had a much longer life.

The proposition has been: Granted that the purpose of a wall is to make possible or to accelerate

to all houses of any importance. Here were the Apricots, Peaches, Nectarines and the choicer varieties of Pears and Cherries. How to get better and more certain crops must have been a perennial subject of thought to the gardeners of the seventeenth and eighteenth centuries. In the early years of the latter, according to Bradley and Switzer, the building of "hot-walls" began to be practised. It was at Belvoir Castle and Knowsley Park that these structures first saw daylight, and their success was such that the custom was continued till well on in the eighteen hundreds. Thus Loudon in his "Encyclopædia of Gardening" (fifth edition, 1827, page 305) writes: "Where wall fruit is an object of consideration, the whole of the walls should be flued or cellular." Some of these structures are still standing in many an old garden, but I have never seen one in use. A lifetime of about 150 years may fairly be claimed in this

connection to be a successful one. Hot-walls have been the great exception among the many attempts of out-walling fruit walls. For, whereas the sloping, the hinged, the circular, the waved, the horizontally tiled and various other forms have from time to time been tried, after a few years' use they have been found wanting. The hot-wall alone lived. It had, be it remembered, a good send-off. The number of bricks required was no more than what would be used for one a brick and a half thick. The cost of upkeep was not great. "The expense of warming walls of several hundred feet long will scarcely amount to thirty shillings per annum" ("Treatise of Husbandry and Gardening," Bradley, Vol. II., page 30). So it came to pass that hot-walls became general in the larger gardens; and various authors have from time to time recommended their use. Improvements in construction duly followed, also in their management. For example, James Justice in his "British Gardeners' Director" (1764) advises any length of hot-walling to be divided into three, so that the trees might always have two years' rest, "for continual forcing of one and the same space of walls will never do."

The following are among the varied methods which have been suggested for the better construction of walls for fruit trees, the idea being to get more work out of the sun.

1. The hot-wall, which has been the only really practical one.

2. The semi-circular (or angular) wall.—This was suggested by T. Langford in his "Plain and Full Instructions to Raise Fruit Trees in England" (1681, second edition 1696). The illustration in his book, reproduced on page 628, gives us a good idea of the kind of wall he advocates. "By means of these rounds, every wall will one time of the day or other have a share of the sun . . . and the trees be more secure from winds." Although the author says he has seen the benefits of such a wall in "somewhat a cold country," posterity condemned them, for the wind is "reverberated with great force upon the trees; the air is made colder, and fruit is thereby made later in ripening and becomes ill tasted."

3. Walls with arched foundations.—The idea was to give more root run. The practical result was to keep the fruit always growing, so that the hottest rays of the sun are powerless to ripen it, and it remains "a globe of undigested matter."

4. Inclined walls of either wood or brick.—Walter Nicol, at the end of the eighteenth century, advocated these made of wood, but they had been constructed nearly 100 years earlier, N. F. De Douillier having published a work entitled "Fruit-walls Improved by Inclining Them to the Horizon." Some were erected on this plan at Belvoir Castle and were visited by Switzer, but he found them

unsatisfactory. Miller and Lawrence also condemn them.

5. Horizontal shelters of tile or lead.—Lawrence seems to have been the father of the lead ones. In a "Kalendarium Universale, or Gardeners' Universal Calender," published with the imprimatur of Bradley, in the second edition (1733), page 90, details are given of how to build a wall with rows of tiles projecting $1\frac{1}{2}$ inches every few courses of brick. "To avoid the unseemliness of branches riding over the edges of tiles in each row, at convenient distances must

urge that fruit walls should be painted black. His criticism is short and to the point: "this also answers better in theory than in practice."

7. Mud or clay walls.—These are mentioned because I have somewhere read that the best way to make suitable provision for training trees against them was to stick plenty of sheep's bones in the clay (?) arranged so as to protrude a few inches from the surface, to which the branches might be tied. I have heard of an economical hostess who in this war-time requests her guests not to mess up the bones on their plates, as they are wanted for soup!

What a saving of leg of mutton bones there must have been in establishments when, in olden times, a mud fruit wall was in contemplation! But what changes since these things were!

It is no longer Helios but Vulcan that we want to make more useful. We have vineries, Peach-houses and orchard houses galore. We have nearly got all we can out of the sun—our chief concern now is fire.

TWO FINE APPLES.

Of late, much has been written of Apple Bramley's Seedling. Many competent growers hold the opinion that it is the finest culinary Apple extant, and undoubtedly it possesses merits which go far to support that opinion; yet I venture to suggest that Newton Wonder has serious claims to the premier position among culinary Apples. Every fruit garden should be well stocked with both varieties; they are cooking Apples in the truest sense of the word, the fruits are of good size and have a fine appearance. The trees are disease resisting and of very free growth, will grow equally as well in the orchard as in the garden, and both are heavy croppers; but here in Gloucestershire we find that, whereas Newton Wonder never fails to carry a very heavy crop, Bramley's Seedling bears abundantly in alternate seasons; that is to say, every second year the crop will be moderate, not a failure. We have an orchard here, planted some eighteen years ago, which bears ample testimony to the high qualities of both Apples. Many of the best varieties were planted, but the two Apples under notice are much in evidence from their sturdy

growth, cleanliness and fine shape; and this year, from one tree of Newton Wonder, we gathered three bushels of fine fruit, large and beautifully coloured; this does not include small or indifferent Apples.

Both are suitable for espalier or bush trees for the garden or for orchard standards. Perhaps Newton Wonder is rather better as a trained tree, Bramley's Seedling being of slightly more vigorous growth. If restricted to two main crop culinary Apples, one could not do better than plant both, and of the two I would give the palm to Newton Wonder

Cirencester.

RALPH E. ARNOLD.



APPLE NEWTON WONDER. NOTE ITS FRUITFULNESS ON THE YOUNG TREE.

be left void places or gaps for the wood branches to pass through . . . By the help of these kinds of shelter in the most difficult year a good quantity of the choicest fruit may be depended upon." Lawrence's substitution of lead for tiles enabled the shelter to be turned up or down at will. (There is a picture of this in the second part of "The Art of Gardening," by Lawrence, second edition, page 78.)

6. Painting walls black.—The well-known fact that a black surface is warmer to the touch than a white one led people in Philip Miller's time to

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Melons.—If ripe fruits are desired by the end of April, a sowing may be made early in the New Year. Sow the seeds in 2½-inch pots filled with loam mixed with mortar rubble. Plunge the pots in a hot-bed and place sheets of glass over them. To be successful with the cultivation of early Melons, a heated pit with a southern aspect is necessary. After it has been thoroughly cleansed, a hot-bed must be made on which to grow the plants, and this must be elevated as near to the glass as practicable. On this may be placed a bed of soil consisting of loam, brick rubble and wood-ashes. This must be made quite firm, or the growth of the plants may become gross and liable to canker. When the young plants are ready, plant them out on small mounds about 20 inches apart. A temperature of 65° or 70° must be maintained to keep the plants progressing satisfactorily.

Strawberries in Pots.—As soon as the flower-spikes begin to show, the plants must be placed quite near to the glass and the temperature raised to 55° or 60°. At this stage a little stimulant must be afforded, increasing it in strength as growth develops. Soot-water and diluted farm-yard drainings will be sufficient till the fruits have set, when a little artificial manure may be supplemented. The plants must be well sprayed with lukewarm rain water twice daily, and the atmosphere kept moist by frequently damping the bare surfaces in the house. Further batches of plants may be placed indoors at regular intervals.

Plants Under Glass.

Calanthes.—When the early flowering varieties have been relieved of their flower-spikes, the pots may be placed closely together on a shelf near the glass in a temperature of 50° or 55°. The roots should not be shaken out till a week or two before potting-time. The variety *sanderiana*, which is just now developing its flowers, must be given plenty of light and the atmosphere kept dry. In the event of the glass becoming obscured owing to fogs, it must be cleaned immediately, or the flowers will suffer.

Gardenias.—The plants growing in pots must be liberally fed with stimulants now that the flower-buds are developing. A temperature of 65° or 70° must be maintained, except during spells of very severe frost, when 5° lower may be allowed. Before coming into flower the plants may be laid on their sides and vigorously syringed with an insecticide, especially if they are infested with mealy bug.

Salvia splendens.—A few of the most promising of these must be kept for supplying cuttings. Place them in a cool, light house after partly cutting them down. *Salvia Pitcheri* may be cut right down and placed in a cold frame. This variety will produce plenty of cuttings from the base of the plants. These will root readily in cold frames in the spring.

The Flower Garden.

Bedding Plants.—Cuttings of *Pelargoniums*, *Coleuses*, *Iresines*, *Ageratums*, *Salvias* and *Lantanas* which were rooted in boxes in the autumn may now be potted into small pots. The propagation of various bedding plants must receive attention early in the New Year. Old plants of *Fuchsias*, *Lantanas*, *Marguerites*, *Salvia Glory of Zurich*, *Heliotropes*, *Iresines* and *Ageratums* may be placed in a warm, moist house, where they will make suitable growths for cuttings.

Calceolaria amplexicaulis.—This makes a most effective plant when grown as a standard, and it is so easily grown that a good batch should be propagated annually for this purpose. Some of the most promising of the young plants which were rooted in cold frames may be dug up and potted into 4-inch pots. Place them in a light position in a house having a temperature of about 50°. They must be staked, and, as growth proceeds, the side shoots must be removed till the desired height is reached. The plants will need a second potting into 6½-inch or 7-inch pots.

Annuals in the Flower Garden.—A well-arranged border of annual flowers provides a most

interesting and showy feature in the flower garden. The following are a few which are suitable for this purpose: *Larkspurs*, *Clarkias*, *Godetias*, *Cosmea*, *Coreopsis*, *Cornflowers*, *Dimorphotheca*, *Dianthus*, *Eschscholtzias*, *Linums*, *Nemesias*, *Salvia Fireball*, *S. Blue Beard*, *Nigellas*, *Kochias*, *Arctotis*, *Lavateras* and *Sunflowers*. *Antirrhinums* may be treated as annuals by sowing the seed in heat in February. The ground should be prepared now, and a good quantity of well-rotted manure be dug into it.

The Hardy Fruit Garden.

Peaches and Nectarines.—These may now be pruned and cleaned. If the old fruiting wood was removed when the fruit was cleared, little remains to be done now, but it will be wise to examine the trees carefully, and in the case of very old trees it is sometimes necessary to cut out an old branch here and there to make room for young wood. The trees will need a thorough washing with an insecticide; and should they be attacked by scale, a soft brush must be used to dislodge it.

The Fruit-Room.—Apples and Pears should be examined once a week, and those which have commenced to decay must be removed. Endeavour to keep the room sweet by opening the ventilators during mild weather. A temperature of 40° will be suitable for Apples; and if very severe frost sets in, the windows and doors should be covered with mats.

The Kitchen Garden.

Cauliflower.—About the first week in January a sowing of an early variety may be made. Sow the seed thinly in boxes of light soil and place them on a shelf in a light house. *Sutton's First Crop* is an excellent variety for this sowing.

Seakale.—To keep up a supply of this vegetable, a batch of roots must be placed in the forcing-house every week. The roots outdoors must be covered with Bracken or litter as a precaution against a continued spell of hard frost. When lifting the roots for forcing, select the pieces suitable for cuttings and place them in a cool shed. In wet weather they may be cut into suitable lengths, bunched up, and placed in an upright position in boxes. Cover them with a few inches of soil and place the boxes behind a north wall.

E. HARRISS.

(Head-gardener to Lady Wantage.)

Lockinge Gardens, Berks.

FOR NORTHERN GARDENS.

Plants Under Glass.

Chrysanthemums.—The majority of the cuttings should now be taken, to allow a number of the old plants to be thrown away, and so leave more pots and space available for other material. Cuttings which are already rooted should be gradually accustomed to more air, which is essential if sturdy and strong plants are to result. Any cuttings attacked by fly should be dipped in a mixture of insecticide.

Stove Temperatures.—Too much artificial heat is injurious at this period of the year, when the majority of plants should be resting. *Crotons* and other occupants of the plant stove invariably start more freely into growth at the proper time if they have had a proper rest. This must, of course, be done with discretion, as too low a temperature or a continuation of cool treatment would in most cases cause the leaves to drop and the general disfigurement of the plants.

Tree Carnations.—This is the best time of the year to propagate these plants. Every available cutting should be secured as soon as possible. Cuttings already rooted must be potted up singly in 2-inch pots and kept in a close frame for a few days until the roots commence to take possession of the soil, which should be light and open, made so by the free addition of crushed brick, charcoal, leaf-soil and coarse silver sand. Be careful not to over-water, as the small, tender roots are quickly injured if water is given in excess.

Malmaison Carnations.—The potting of young plants into 6-inch pots should be completed as

soon as possible, seeing so much is to be gained by doing this now. Maintain a temperature of 50° during the night, and only allow an advance to 55° during the day. If rust is troublesome, remove the badly affected parts, and on no account allow a moisture-laden atmosphere, as this would be ideal conditions for rust becoming firmly established.

Fruit Under Glass.

Bottling Grapes.—After this date, if only for the welfare of the Vines, no Grapes should be left hanging in the vineries. Although all the foliage may have fallen, the Vines are being robbed needlessly if the bunches are left to hang. Shrivelling is common with late Grapes, especially *Mrs. Pince*, but this will be prevented considerably if the Grapes are bottled. A dry and cool room, where there is not much chance of dust being present, is the best place to keep them. The bunches must be looked over occasionally to remove any decaying berries, which would quickly infect others and so spoil an entire bunch.

The Kitchen Garden.

French Beans.—More sowings should be made as the days lengthen, seeing they grow better and produce pods more freely. White and green fly must be kept in check by fumigation. To prevent red spider becoming troublesome, the foliage should be syringed when the conditions of the weather will permit of it being done.

Rhubarb.—Where a continuous supply of this is required, fresh batches should be brought into heat every fortnight. Where indoor accommodation is limited, a few old barrels with the ends knocked out can be placed on the plants outdoors and surrounded with new stable litter.

Asparagus. like Rhubarb, should be brought indoors to force at intervals to keep up a regular supply. Unlike Rhubarb, it should be grown in full exposure to light.

Salads.—Chicory and Endive must be blanched as required for use, allowing about a fortnight for the process. Lettuces become scarce at this season, so that a few seeds may be sown at once in boxes, which will be growing on and be ready for pricking out in frames for spring use.

Carrots.—Young, tender roots being in demand the whole year round, more seed should be sown. Where frame space is limited, some boxes may be requisitioned, so long as they are 4 inches or 5 inches in depth. This is also a very profitable way to grow young Carrots, as, after growth is advanced, they can be readily removed to make way for other plants.

Cucumbers.—As the plants at present in bearing will become exhausted within the next few weeks, seeds should be sown in brisk heat to produce young plants to replace them.

Tomatoes.—Young plants should be kept in a growing temperature of 60° where there is not too much moisture. As soon as the roots have taken possession of the soil, pot on into larger pots, but do not use those too large. Small pots are to be preferred for all the early crops.

The Flower Garden.

Standard Heliotropes which are to be used for summer bedding should be kept growing in a stove temperature. Continue to remove flower-buds and all side shoots until the desired height is attained. On the slightest appearance of fly, a fumigation should be given. When repotting, do not shift into large-sized pots, as splendid specimens can be grown in those of 5 inches with the assistance of a little artificial manure.

Digging and Trenching.—Any vacant beds or borders should be dressed with manure, and either dug or trenched as time and the conditions of the weather permit.

Sweet Peas.—The young plants which resulted from seed sown during the autumn should be kept well ventilated, whenever possible. Staking with small canes will also be necessary. If it has been decided where they are to be grown during the coming season, a deep and wide trench should now be thrown out, leaving the soil thus exposed for the remainder of the winter.

JOHN JEFFREY.

(Head-gardener to Sir R. W. Buchanan Jardine, *Castlemilk Gardens, Lockerbie, N.B.*)

BORDER CARNATIONS.

I HAVE had several long and interesting letters from correspondents and some personal friends regarding my selection of two dozen border Carnations specified in the issue for November 27. As anticipated, and as I had hoped, a good deal of friendly criticism is launched; but it is pleasing to note that the consensus of opinion is that the varieties named would be hard to beat as an all-round lot. Let me analyse, first of all, the comments of a noted grower and exhibitor from North London. He has not grown Beau Nash, Ibis, Zulu or Ziska, so cannot speak with authority on their merits. Bookham Clove and Miss Rose Josephs he knows well by reputation, but does not include them in his stock because he does not particularly fancy the colours; and he thinks I made my only real mistake by naming Solfaterra as my third yellow. I quite expected opposition to this last, and agree that it is somewhat tall in growth and is not so fine a flower as Daffodil. On the other hand, it has a grand constitution, which Daffodil has not, although it was included in my list because of its pre-eminence for exhibition; while Border Yellow goes in on account of its good colour, wonderful vigour, and strength of stem. But its flower is not refined enough, while that of Solfaterra is both shapely and a real golden yellow.

My correspondent thinks Mrs. Elliot Douglas might have been named instead, and—well, so it might, quite easily; they are both highly finished products of the hybridiser's art. Beau Nash is a very fine new Carnation, of strong, robust growth, doing excellently in the open border, and has an absolutely brilliant colour of pure deep rose pink. Ibis is a Miss Willmott in scarlet, with more substance in the flower than the old Bob Acres, and it does not burn in the sun. I am surprised Zulu has not yet been tried by this grower. I consider it quite the best of the dark maroons, and, like Miss Rose Josephs, it continues to give perfectly shaped flowers for about four months. Ziska I myself have not grown, but Mr. Douglas recommends it for its unusual colour—cinnabar red—and good form, and I have secured it for next year's bloom.

Everyone ought to grow Bookham Clove for its scent alone; but, apart from that, the flowers are an immense advance on the Old Clove in every way. Miss Rose Josephs is, in my own judgment, one of the most beautiful of all flowers, and I simply cannot understand anyone not liking it. The colour is difficult to portray by description, but I suppose it is old rose. It is a real "Liberty" art shade, and I know of no other flower in garden or greenhouse that can claim a similar tint. Vieux rose has, of course, already appeared among Carnations, as, for instance, in Unique; but when it first made its advent the growth of the plant was weak and very dwarf, and not till Unique

came on the scene could Mr. Douglas find grass strong enough to make plants that would satisfy the public. But Miss Rose Josephs beats all its forerunners, for here we have health, sturdy growth and a perfectly formed flower that is unique indeed.

Another correspondent asks why I made no mention of Cardinal, Becky Sharp, The Bride, Rony Buchanan and Droitwich. The only answer I can make to this is that I do not consider these varieties have been able to stand against the winnowing influence of the survival of the fittest. Rony Buchanan is certainly a good fancy for border cultivation, but there is nothing very distinguishing about it, and there are finer fancies

from Edenside this autumn. I saw it at the Carnation show in July last, and thought it one of the most striking novelties ever produced from that famous nursery. The ground colour is very pure, and is closely barred and streaked with bright deep red; while the petals are broad and smooth, making a noble flower of dignified proportions. For those who can satisfy their natural craving—which, I think, is common to all horticulturists—for novelties, I can strongly recommend Centurion, a new yellow-ground fancy; Henry Brett, a large crimson maroon self; Salmonea, salmon pink, very sturdy constitution; and Sweet Anne Page, a most beautiful flower of delicate colouring, lavender markings on a pale yellow ground. The illustration depicts the new fancy Carnation Edenside, one of the best in this section ever produced. J. L. GIBSON.



THE NEW FANCY BORDER CARNATION EDENSIDE.

now on the market. Cardinal, too, has been improved upon, and Becky Sharp is, if I mistake not, simply a sport from Lord Steyne, which has appeared in several collections, and it is a notorious burster. Droitwich is a white-ground fancy, and when at its best is a dainty-looking flower. As a rule, however, the white ground is not pure enough in tone, not so good as The Bride in that respect, while even the last named will go down before Daisy Walker. Personally, I like Montrose if a second white-ground fancy is wanted in a small collection, and its grass is always clean and healthy looking, making very fine layers.

A new variety in this class that is sure to be largely grown is Lord Kitchener, sent out

flowering qualities, while no difficulties will present themselves in respect of cultivation. The repotting should be done in early spring, or soon after the flower-spikes are removed, using as a rooting medium good fibrous loam, peat and sphagnum moss in equal parts, while a few small nodules of charcoal or finely broken crocks may be added with advantage. Owing to the thick, fleshy roots, ample pot room is necessary, and the pots should have one-fourth of their depth filled with drainage; over this may be placed a thin layer of moss to maintain a free outlet for water. After being disturbed at the base, little water will be needed for a week or two; but when the roots begin to take possession of the soil, more may be given, and at no time must they be allowed to suffer from

A USEFUL WINTER-FLOWERING ORCHID.

ZYGOPETALUM MACKAYI.

THIS fine Orchid was originally introduced from Brazil in 1826, and has always been held in high esteem by cultivators generally, while a good batch is often seen in gardens where there is no other attempt made to grow Orchids, perhaps excepting the Cypripediums. Many plants have been imported, but a large number have also been raised from seed in this country. Z. Mackayi has been carefully fertilised with pollen from such genera as Odontoglossum, Lycaste, Cymbidium and Maxillaria, but the seedlings, upon flowering, were in every instance Z. Mackayi pure and simple. Mendelians will probably say that if these seedlings were "selfed" a hybrid would appear in the proper ratio; but this has been carried out even to the third and fourth generation by several Orchid-growers without any trace of the pollen-bearing parent being apparent. The spikes of this fine Zygopetalum are produced during the autumn and winter months, and the somewhat flat flowers are light yellow-green, blotched with purplish brown, while the broad, fan-shaped lip is white, streaked with violet purple. One reason why this plant is popular is, no doubt, owing to the facility with which it adapts itself to the conditions prevailing in greenhouses and its free-

drought. Z. Mackayi may be grown either at the warmest end of the cool house or in the intermediate division, while some place them among the Cattleyas; but a little more shade is required to secure the best results. The principal pests are thrips, which congregate in the new shoots; but these can be destroyed by vaporising the house at intervals, or by spraying with a weak solution of some reliable insecticide. T. W. B.

WAR NEWS FROM FRANCE.

FRENCH horticulture has been severely tried by the great war. Many gardeners and nurserymen have been killed or wounded at the Front, some of whom, of course, are not known here in England, but others who have lived among us and who have many English friends have also suffered.

At the present moment one well-known name stands out prominently before us. M. Henri Nonin, only son of our old friend M. Aug. Nonin, the well-known Chrysanthemum grower near Paris, has been wounded a second time. Early in the war he was struck by a piece of shell and wounded in the leg, and subsequently contracted typhoid fever. After five months' absence he rejoined his regiment, and shortly afterwards was given a commission. Sous-Lieutenant Nonin, as he now is, was again wounded at Toul, where his right arm was broken and badly splintered. It is hoped that his arm will be saved, but at least eighteen months will elapse before he can expect to regain the use of it, if ever he does. We are pleased to record that on the 3rd inst. our young friend was decorated in hospital at Lyons with the Legion of Honour and the War Cross.

M. Alfred Nomblot, who was recently appointed to fill the place of M. Abel Chatenay as secretary of the National Horticultural Society of France, and was wounded on April 18 last, but, refused to leave his regiment, has now been promoted to the rank of Chef de Bataillon. He, too, mentioned in the order of the day, has received the War Cross.

M. Lucien Gravereau, son of M. A. Gravereau, belonging to the French Colonial Ambulance Service, has received the same distinction for gallantry at the Front. English visitors to Paris are well acquainted with this young man's father, who is familiarly known as Gravereau without the "x," to distinguish him from the famous rosarian, M. Jules Gravereaux of L'Hay.

We learn that M. René Adnet, eminent for his work in the improvement of the Gerbera, who lost the use of his arm, but, nevertheless, continued his service as captain instructor in his regiment, has had a serious attack of congestion of the brain as the result of overwork. He is now reported as improving.

M. Montigny, a prominent exhibitor of new Chrysanthemums, living at Orleans, is reported to have died recently. His son, who spent some time in England a few years ago, was one of the first of the young French gardeners we knew personally to be killed in the war.

From a paragraph in a French contemporary it appears that it was not M. Joseph de Hemptinne, the orchidist of Ghent, who was executed, as stated by the *Echo Belge*, by the Germans a

short time since, but his brother, Count Paul de Hemptinne. M. Joseph de Hemptinne, it is said, was condemned to death, but was pardoned on the intervention of the Pope.

OBITUARY.

THE HON. JOHN R. DE C. BOSCAWEN

AS announced in our last issue, the Hon. John Boscawen of Tregye, Perranwell, Cornwall, died suddenly on the 12th inst. For a long time he had taken the greatest interest in everything that pertains to horticulture, and his cheery and exhilarating presence will be missed in many circles. His services were continually requisitioned for our large shows, including, of course, the International.

He was one of the founders of the Cornwall Daffodil Society in 1897, and from that time until



THE LATE HON. JOHN DE C. BOSCAWEN.

the present he was its honorary secretary. The fame and success of this—the pioneer—society have been greatly due to his enthusiasm. He had a fine collection of Daffodils in his garden, and his wife, Lady Margaret, has been a frequent exhibitor at Truro.

He was one of the oldest, if not one of the original, members of the Narcissus and Tulip committee of the Royal Horticultural Society.

Latterly his public activities have been mainly directed to the development of the horticultural section of the "Royal." Visitors cannot fail to have marked its expansion within the last few years. We do not think we are overstepping the mark when we say that this has been due almost entirely to the energy, the business acumen, and the never-failing sympathy and courtesy of John Boscawen, its head.

We respectfully tender his widow and family our deepest sympathy in their great loss, which we, in common with all horticulturists, must to some extent share.

THE "COUNTRY LIFE" ANTHOLOGY OF VERSE.

IN the pages of *Country Life* all aspects of the country, its activities, sports and pleasures, are described. But mostly in its poetry is to be sought the imaginative side of life and rural beauty. During the course of years many poets of established fame have contributed to its pages, others who have since attained to distinction sent it their earliest verses, and, last of all, verses from unknown contributors have made their appearance in its post-bag from all parts of the world, and have been printed whenever individuality and fine taste were shown. The one criterion applied to them has been that of worth and sincerity. There are poems for to-day of "the lads who have gone to the war," and of those who will come back no more. The poems of loss and regret will appeal to the many who have heard the beating of the wings of the Angel of Death. And it is hoped that the beautiful poems of our countryside, of our grey seas and tumbling burns, will be read with joy by soldiers far from the home and land where their hearts are. Did space permit, we should like to quote a number of the poems on flowers and gardening, but we must confine ourselves to two. The first is

"SNOWDROPS.

Snowdrops, in springs to be
When popped dreams I keep,
Grow not over me
Lying asleep.

Else might I sadden when
Thy Elfin Melody
Waking Earth up again
Cannot wake me.

A. HEPPLE DICKINSON."

And the second

"THE POPLARS.

In stifling lane and garden bed
The flowers droop, listless in the heat,
O'er petals lying dead.
The Elms stand motionless. The Fir's
Hot scent hangs stagnant. No breath stirs
Across the shining Wheat.

But far above the flowers a-swoon,
And far above the silent sheaves,
From pallid dawn to languid noon,
The Poplar trees are whispering low
To little secret winds that blow
Among their murmuring leaves.
The Poplar trees are singing, throughout the sultry
hours—

Songs the cherished garden flowers
Will never, never know;
Songs the blessed harvest field will never, never
know—
Are singing to the little winds that flutter to and
fro.
ISABEL BUTCHART."

Nearly one hundred poets contribute to the pages of this excellent book, among whom we may mention Robert Bridges, Lord Archibald Campbell, Walter de la Mare, Sir George Douglas, Bart., John Drinkwater, Lady Glenconner, Dorothy Frances Gurney, W. E. Henley, Violet Jacob, Sir Henry Newbolt, Lady Margaret Sackville, Lady Wynford, &c. It is safe to prophesy a very large demand for this charming anthology.

